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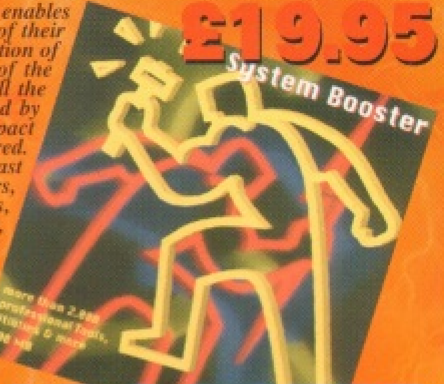
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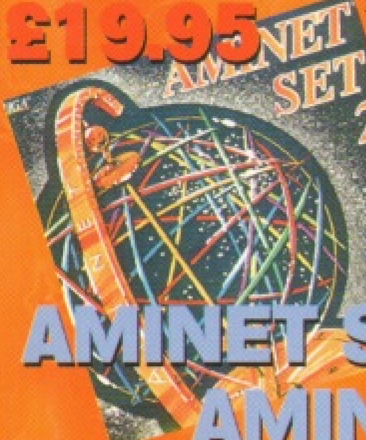
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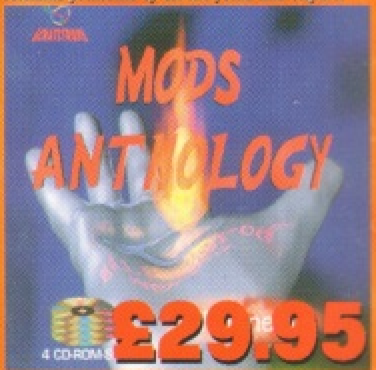
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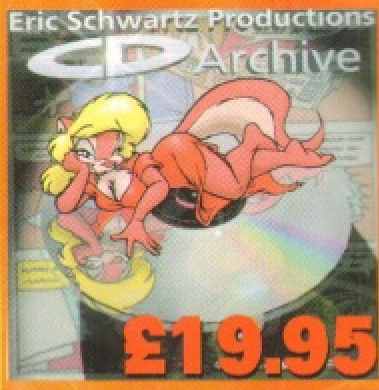
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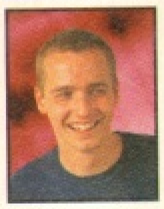
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CU AMIGA MAGAZINE **AUGUST 1997 • CONTENTS**

Editorial



Things are kicking off again on the Amiga scene. Gone is the dreary self pitty that's been too common over the past couple of years, replaced by a wave of fresh proactive schemes designed to put some action back into the Amiga scene. The arrival of phase 5's PowerPC cards is going to spark a revolution, with software developers already working on next generation applications and games that are going to turn your Amiga into a Pentium beater almost overnight. See the features on pages 26 and 30 for more. Take advantage of our great Storm C cover mount with the new tutorial series and you too can play a major part in the renaissance.

Tony

Tony Horgan, Editor

Cover Feature



Features

Cover Disks & Super CD-ROM



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Games

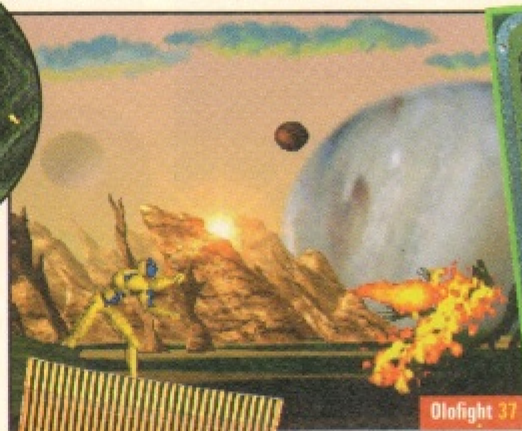
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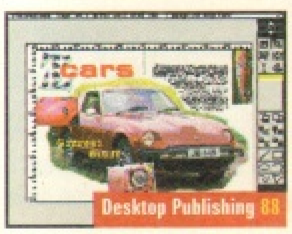

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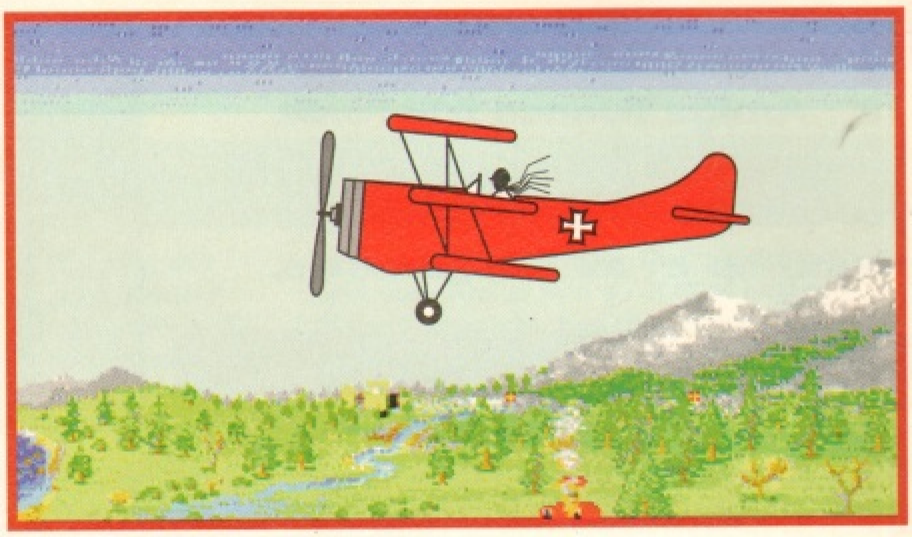




I say, enemy at three o'clock. Kite's losing altitude! Bally Red Barron – curse this war! Looks like we're not going to make it back to old Blighty in time for tea after all, Algernon. 3D graphics? Lightspeed action? Dogfight has neither, but it's more fun than anything we've played in ages!

How to load

This one is pretty easy. Even Ginger could manage to get this one right after he'd got a bit squiffy in the flyers' mess. What you do is boot up your Workbench, stick the Dogfight disk into your drive, click on the disk icon and then click on the Dogfight icon. Then the program runs. It really is easy, which is lucky because it means you can save your energy for trying to defeat your foe!



There are a few things you will need to play this game: An Amiga, a couple of joysticks, a friend and a lot of bloodlust. The purpose of the game is monumentally straightforward. You take on the role of a World War 1 flyer for either the Germans or the English. All you have to do is take off, fly across the channel, and blast your enemy's aircraft out from underneath him.

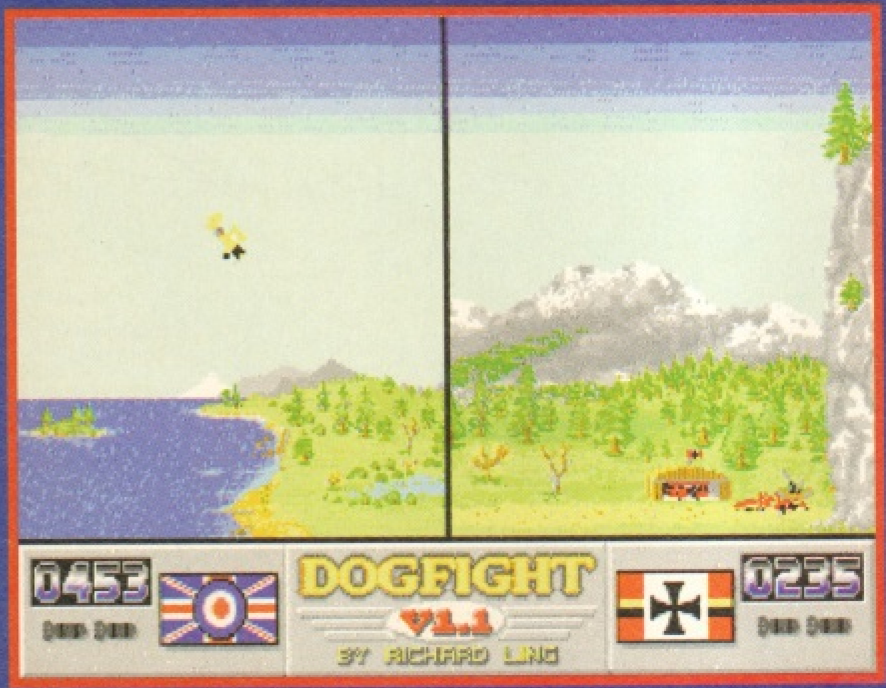
Flying a biplane isn't an easy task. No fly by wire, this is fly by rudder. To point up, pull the joystick away from your direction of travel, to point down, push the stick the other way. There are only two other controls: pulling down on the joystick causes your brave pilot to hurl a bomb from his cockpit, and hitting the fire button, logically enough, fires your guns.

The hardest part is taking off. Not only do you have to get up enough speed before take-off to avoid stalling, but someone decided to plant a tree at the end of the runway. The trick is to wait until you get quite close to the tree, pull up hard and level out quickly as soon as you are higher than the tree. You will stall in mid-air if your speed drops too low, so watch those loop-the-loops!

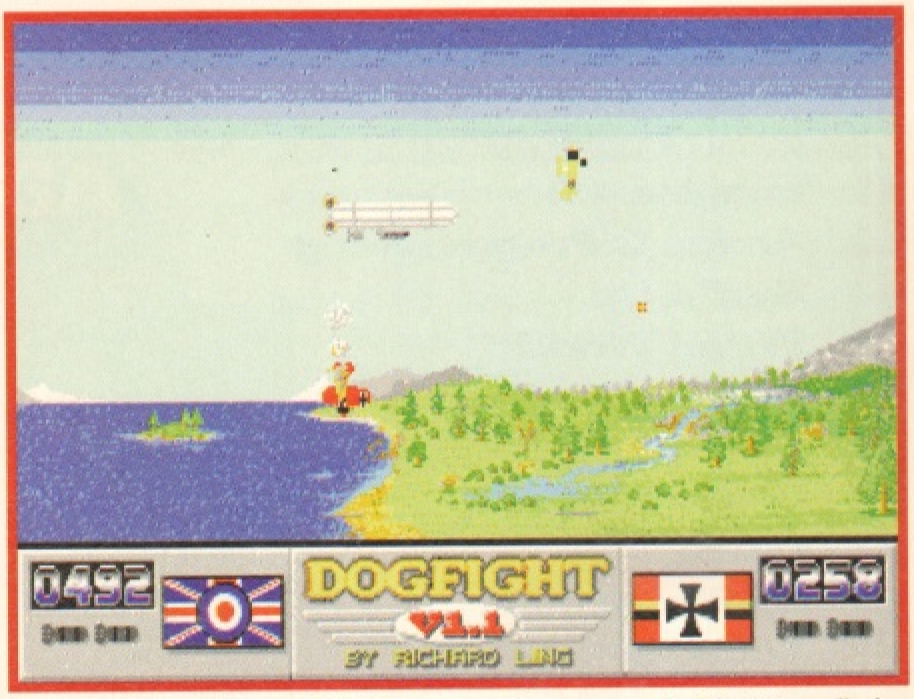


Be careful of other threats – not only is your enemy's airfield protected with an anti-aircraft gun, but you will often see a zeppelin or a submarine appear. Look carefully to see what flag they are flying, because some are on your side and others are on your foe's. Shoot down the airships and bomb the subs for some extra points.

Thanks go to author Richard Ling for the best version yet of this classic. If you enjoy this game as much as we do, you could send Richard a postcard. See the AmigaGuide document for details. We want his postman to suffer!



▲ A German biplane lies in wreckage, but there's another Fokker waiting in the wings... Look out Tommy, this war isn't over yet!



▲ I say! Those chaps from the blimp have come to the rescue again. Take that, you Hun! But wait... losing speed... kite's stalling... damn! Looks like I'll never see old Blighty again.

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To reload a ribbon is easy, just remove the top, take out the old ribbon & reload it with a new one.

	complete ribbon	one reload	five reloads
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Panasonic KXP2135	£9.99	£6.99	£29.95
Star LC200 9pin	£9.99	£5.99	£29.95
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Black Printer Ribbon Reloads

Citizen Swift/ABC/120D 5 black reloads £9.99
Star LC10/20/100 5 black reloads £4.99
Star LC24 range 5 black reloads £9.99
Seikosha 1900/2400/SL95 5 black £9.99
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Star LC24-30/LC240 5 black reloads £14.99

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T-Shirt printing ribbons

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4 col Panasonic 2123 £24.99
4 col Panasonic 2135 £19.99
4 colour Star LC200 24pin £19.99
reloads for above £9.99
4 colour Star LC200 9pin £12.99
4 colour Star LC10 £10.99
reloads for above £7.99
Black Citizen Swift/ABC/120D £9.99
Black Star LC10 £9.99
Black Star LC200 9pin £9.99
Black Pan KXP1080/81 £9.99
Black Pan KXP1123/24 £9.99

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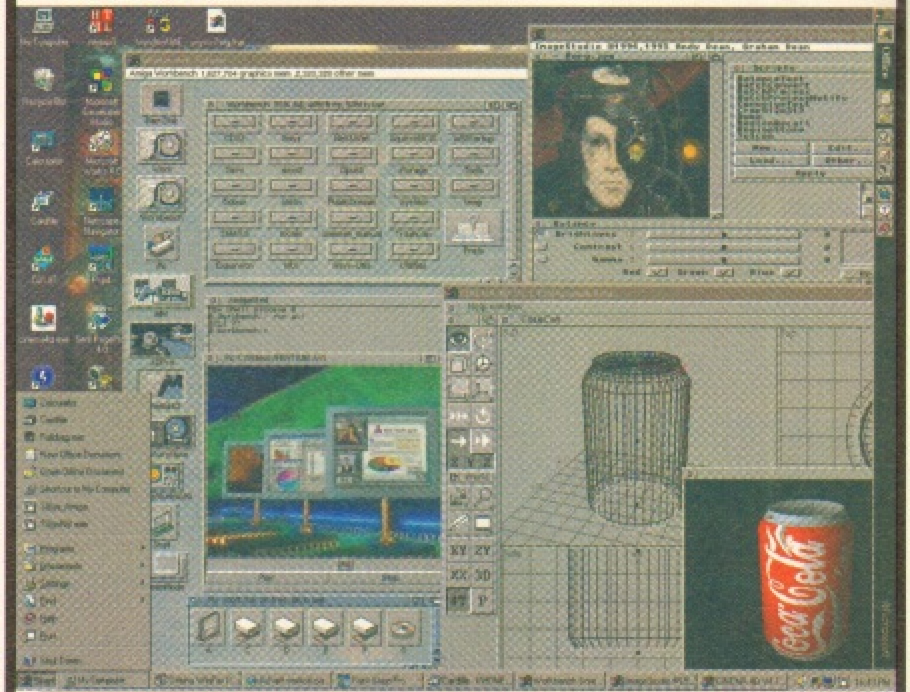
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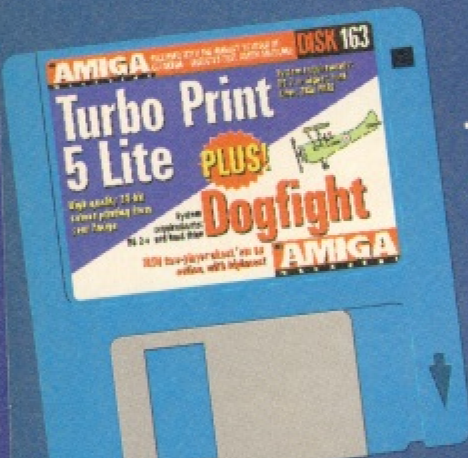
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DISK 163

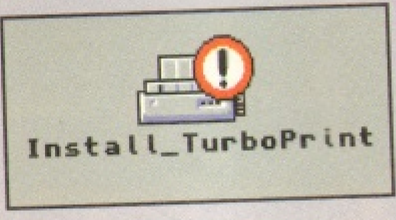
Turbo Print 5 Lite



Turbo Print and Storm C in one month – what's the catch? One is a 'lite' version and one is time limited, but they are both fully useable, and both totally brilliant. No catch, We just like to spoil you!

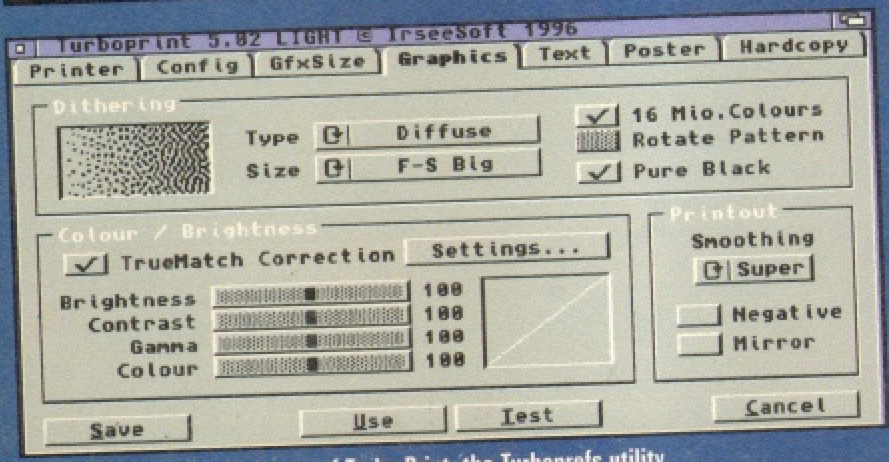
Loading instructions





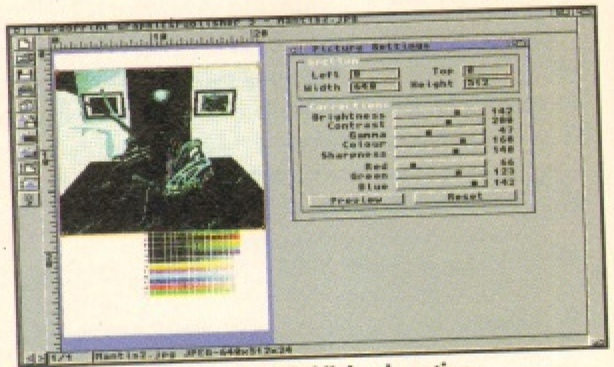
Storm C 2.0:
Installation of Storm C is a simple enough process. Stick the disk in your drive, click on the disk icon, then on the Install_StormC icon and select the directory you would like Storm C to be unarchived to. Make sure you have 4Mb of spare space. Open your new StormC drawer and you will find a standard installer icon to install Storm C to your system. CUCD owners can just click on the install item from the CD StormC drawer. Finally, learn C and write a killer program.

Turbo Print 5 Lite:
Don't be deceived by the label, you'll actually find the Turbo Print icon on the same disk as Storm C. The procedure is also the same – click on the icon above to decompress the archive, then click on the installer icon in your new Turbo Print drawer to install to your system. Follow on screen instructions to choose which printers you want installed and whether or not Turbo Print should be started when you boot up from Workbench.



▲ Here it is, the powerhouse of Turbo Print, the Turboprefs utility.

Once you have installed Turbo Print, you'll find it will happily beaver away without too much attention. However, if you want to get the best out of your printouts, you'll need to know Turboprefs and Graphics Publisher.



▲ An example of Graphics Publisher in action.

Turboprefs is where you can tell Turbo Print to change the printer type you are using or change the paper size and so on. When you fire it up, you are presented with a deceptively simple looking screen, from where you can select a printer. There are only a couple of other options, one to print to file, the other to chose an alternative port: avoid this unless you have a fast parallel port add on such as PortPlus. Look at the top of the window and you will see that things aren't quite as basic as they look. There are click tabs to navigate through seven different screens full of preference options, to allow you to do select everything from output resolution and page size through to dithering types and smoothing options. Note that one or two options are disabled in this version.

It is a good idea to play around with Turboprefs to find out the best settings for your printer, but you'll probably want to change options every now and then depending on what you want to print out. It isn't worth printing proofs in maximum density, you'll just waste time and ink. Print density in the Config screen has a major impact on both output quality and speed, and is the main way you will trade these two off.

The Hardcopy screen gives you the option to either ignore or use Workbench preferences – this allows Workbench printer preferences to alter your Turbo Print preferences. Be aware of this option to avoid future confusion.

The other main program in the Turbo Print Drawer is the graphics publisher. This allows you to print image pages out at the highest possible quality and has a wide selection of image manipulation and colour balancing tools. You can place multiple images on a single page and layer images over each other. The range of options seems daunting at first, but once you've mastered the toolbar, you'll find the rest is quite straightforward. Remember that you have to click on a particular image to apply an effect to it or move it. The Graphics Publisher will only print one half of the page in this demo version but Wizard are offering readers of CU a special upgrade offer – see page 34. Last but not least, make sure you read the readme for additional details and some great tips.

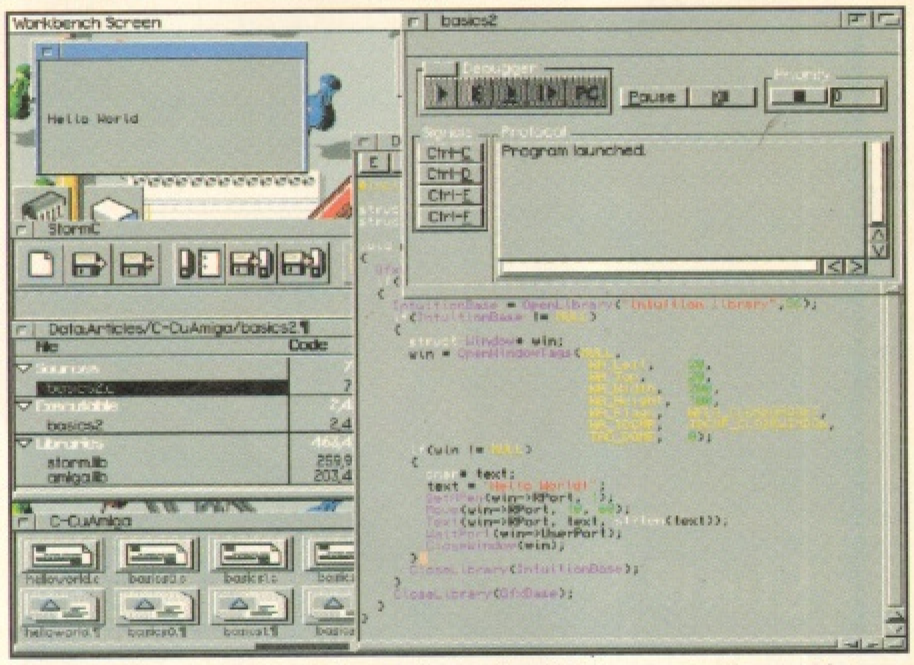
The Toolbar

- **New project**
- **Open file**
- **Not available**
- **Print**
- **Load image**
- **Not available**
- **Current picture to back**
- **Current picture to front**
- **Page size**
- **Position image**
- **Picture settings**

Storm C 2.0



A time-limited but fully functional version of the excellent Storm C compiler has been included for you on this month's CU Coverdisk 162 and CD-ROM 13.



▲ StormC in operation. It may look complex, but it could be your road to fame and fortune. C is an excellent compromise between high and low level processing.

Storm C has a number of distinct advantages over other C (and C++) compilers for the Amiga. Probably most important is the fact that it is the only commercial compiler being actively supported. Haage and Partner have recently brought out version 2.0 of Storm C, which includes a number of significant improvements over version 1.1.

Another unique feature is the Integrated Development Environment (IDE), centred around a visual project manager. This greatly eases the chore of getting your project compiled in the correct order, with the right options and link libraries. This means that the only typing you need to do is creating the source code! Which brings us neatly to another thoroughly modern feature: the source editor. It highlights different parts of your code (such as C keywords and Amiga system functions) in different colours, making it much easier to trap typing mistakes. And, should you not be happy with the default editor, Storm C 2.0 has support for using GoldEd, using the same integrated method.

The demo version of Storm C with this issue is limited to creating only small examples, but that should be sufficient for you to work through the tutorial projects and get a good feel for how easy the IDE makes things. So go away and install it, then come back and we'll get down to business.

The first project

Right, assuming you've successfully got the Storm C onto your hard disk, follow these simple steps for creating the very simple (and very standard) Hello World example:

Step 1
Open the Storm C drawer (wherever you installed it) and then double-click on the Storm C PP icon to start the IDE. Storm C is so GUI-driven that you can't run any part of it from the Shell. Everything must be run from the IDE. You can even run the programs you create in a very safe way from the IDE, as we'll see later.

Step 2
To create a new project, click on the Open new project window icon on the tool bar of the main IDE window, or select New from the Project menu, or simply press F4. A new window will appear that lists the sources, link libraries and other files used in your project. By default it should have just a Libraries section. We will soon be adding a new source file to this window.

Step 3
If the Libraries section includes 'amiga.lib' then skip to the next step. Otherwise, we need to add it, since the tutorial examples all require this link library. Select Add Library(s) from the Project menu and double-click on 'amiga.lib' in the file requester that appears. Now select Save As Project Template from the Project menu. The next time you create a new project, it will automatically have 'amiga.lib' in the Libraries section.

Step 4
Now select Save As from the Project menu. Choose a directory to save the project and give it a name, something like hello for instance (Storm C will automatically add a ".∂" extension). Once this is done it will be a bit easier to add files, since all file requesters will start off in the project directory.



Step 5
The next thing to do is give the name of the executable that we want to create. Choose Select Executable... from the Project menu, and change the name from 'a.out' to a more suitable one (i.e 'hello'). A new Executable section should appear in the project window.

Step 6
Now we can add a file to the project. Select Add File(s) from the Project menu. Give a new filename like 'hello.c' (the name must end with '.c'). You should be greeted with a requester saying the file doesn't exist and asking if a new file should be created. Click on the Create button and the file will appear in the new Sources section of the project.

Step 7
To edit the new file you need to double-click on the filename in the Sources section. The editor will then appear with a blank sheet, waiting for you to type in the following code:

```
#include<stdio.h>

void main()
{
     printf("Hello
World!\n");
}
```

Take particular care with the funny characters #, {, }, and \. You'll find them on your keyboard eventually! Hopefully, as you type the last letter of "#include" it will change colour, depending on how many colours your Workbench can display. The same should happen with 'void', 'printf' and the whole of the greeting string in the double quotes. This gives a nice visual aid to help check that what you're typing is what you wanted.

Step 8
Once you've typed in the code above, click on the Make project icon in the main IDE tool bar, or select Make... from the Compile menu, or simply press F8. This will save the source file and then make the project by compiling everything it needs to (which is just named 'hello.c' in this example). If it all went well, you'll be able to click on the Run button in the compilation window (or press F9). A window called Storm C Console will appear, together with the greeting. And that's it!

Problems?

If you get any problems with compilation, check you typed in the example accurately. To speed things up, you can double-click on the errors in the compilation window to go straight to that line of source in the editor. Once you've corrected any mistakes, try compiling again by pressing F8.

If you've successfully managed to get this far then you're now ready to look at the C programming tutorial, starting on page 80 of this month's CU Amiga.

Win a PowerUP
If you come up with some great C code, you could win a PowerPC card. See page 33.

CD-ROM
Super CD-ROM 13

Unlucky for some... But certainly not for those of you with a CD-ROM drive. The best disc ever - Yet again!



Welcome to CUCD13. If you don't have CD drive yet, read this to see what you are missing.

CUCD13 can be booted from a CD32 or an A1200/4000 with CD32 emulation. To use this CD from your own Workbench, click on the INITCD icon, which will allow software to run from the CD. It initiates MUI and the NewIcons systems - don't be surprised if the look of your Wb suddenly changes. It is all temporary and can be removed by clicking on InitCD again. To help you find your way around, there is a DOCS.GUIDE, which connects you to most text documents, and INDEX, a CD search tool. Like everything on the CD, click on them to activate.

The Audio Track

The audio track on CUCD 13 can, as usual, be played either from your CD-ROM with an audio player and suitable connection to your hi-fi. It can also be played with a standard CD player by selecting track two.

The title of the audio track this month is 'The world, the body, the grave - Extended mix', with the authors Young Monkey asking us to pay attention to the lowercase. The track was listed top ten in the global charts of the UK's DJ magazine and was produced using a variety of Amiga equipment such as; Amiga 3000T, Cyberstorm 060, CV64, Studio 16 with two Sunrize AD516's and two Sunrize AD1012 sound cards, Bars and Pipes Pro and some custom developed software. As if that's not enough they use an Ethernet network and 18 serial ports for MIDI and other sound control systems. Holy cow!

The track is copyright of Young Monkey, Simiam Press. For CD and cassette information contact Young Monkey at the following:

WWW: http://www.youngmonkey.ca

E-Mail: info@youngmonkey.ca

On the disks

Storm C 2.0 demo

To go with our programming feature and following C tutorials, a demo version of Haage and Partner's Storm C compiler is included on the CD. It comes with the necessary includes and tutorial source code examples...so just click on the Storm C Installer to start.

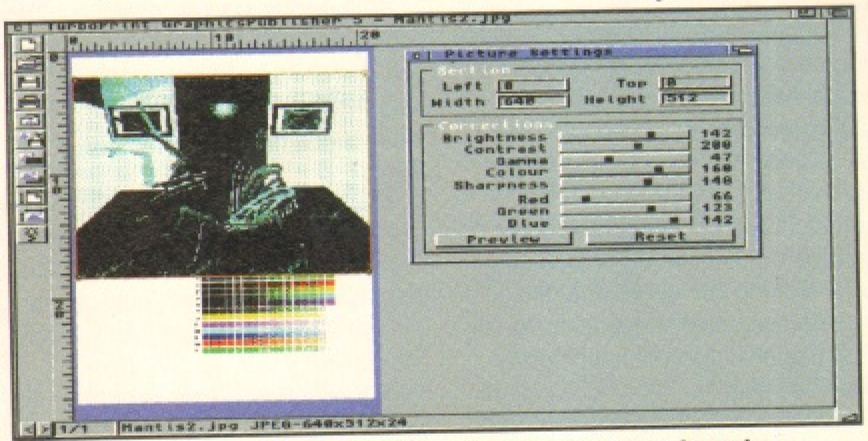
Turbo Print 5 Lite

Superb quality print outs from a wide variety of printers both old and very new are possible with this exclusive demo of the commercial printer enhancer package. Just click on the installer to copy Turbo Print to your hard drive.

Dogfight

To run, just click on the Dogfight icon. See Page 6.





▲ **Turbo Print allows vastly superior quality print out from most modern printers.**

Making things work

Click on a picture icon and a viewer loads up and displays the image. Click on a mod and a modplayer pops up and plays the tune. As much software as is possible will run from the CD as well. However, some things on the disc won't run when you click on them. There are several reasons for this. If it's a picture or animation you may not have enough memory. If it's a demo it may clash with your system. If it's a utility it may need to be installed and so on. If a program doesn't activate, and no error message comes up, read the documentation.

It can get complex with games and demos. Many are written in an OS illegal fashion, which means that they may not work on every set up. Run the bare minimum Workbench and try them. If this still doesn't work, boot with no startup sequence and activate the program from the shell. You will need to know AmigaDOS well for this.

What's in your drawers?



Root: The root directory of CUCD13 is set up like a Workbench disk with all the standard directories – C, Devs, Libs, Fonts and the visible directories listed later. You'll find all of these are packed with files that you can use on your own Workbench if you like, just use a Directory Utility to access them all to copy to your own Workbench. CD support files such as players and views can be found in the System directory.

Storm C: A useable demo of Storm C 2.0 is here, complete with the necessary 'includes' to get started in programming those Amiga masterpieces.

Turbo Print 5 Lite: Now that high resolution 24-bit printers are becoming the norm, your old Workbench drivers just can't cope. Turbo Print 5 Lite is just the answer!

Dogfight: The simple but fun Dogfight-biplanes-two-player-shoot-em-up will have you and a mate bombing with joy. Or something like that.



System: Delitracker, Hippoplayer, GmPlay, NewIcons, ParNET, Flick, Viewtek, VirusZ and more have moved into a new drawer called CDsupport in the System directory. MUI and the standard Workbench system files remain in the parent.

Tools: A fairly standard Workbench tools drawer.

Prefs: Standard Preferences drawer with NewIcon prefs.

Utilities: Multiview, Clock, Toolalias and also some NewIcons utilities.

WWW: Demo versions of the major Web browsers; Ibrowse 1.12 and Voyager NG are here plus the brand new AWeb 3.0 demo. There are also pages to browse without a modem! All you have to do is click on the Show_WWW icon and then select which browser you want to use when asked.

CUCD: Here's where you'll find the really good stuff.

Online: We've got a particularly good online section this time, including Miami Speedmeter, Miami 2.1a, Voyager 2.88, Usenet news and more.

Programming: Just in case our programming over-drive wasn't enough, we've got plenty here, including goodies for Blitz Basic, MUIRexx, GUI for CLI, MCC Mail Text, XPK developers kit and MCC HTML extensions.

Graphics: Icons and backdrops are here in abundance, along with some great tools such as the latest version of the utterly brilliant Wildfire animation and effects system, CyberGraphX 3, Picasso 96 1.21, Draw Studio...

Readers: An over-sized grab bag of contributions from CU Amiga readers graces this section, covering all bases from tools to graphics to mods.

CD-ROM: Plenty of decent CD software here, including BurnIt and MakeCD for writing your own, plus CD filing systems and Aminet CD indexes.

Demos: More for those who enjoy swirly twirly tunnels and spinning texture mapped objects. They just get better!

Information: Four lovingly crafted text guides to Babylon 5, Star Trek Voyager, Blake's 7, and rock band Pink Floyd.

Utilities: Far too many to list them all here, but the selection includes ABackup, CPUSpeed, new Datatypes, SIP HappyDT, MultiCX2, and MagicWB2.1.

Sound: Trackers, players, MIDI files and mods can be found here, just the ticket for musicians and music fans alike.

Games: Full games, demos and extras for existing games can all be found here, including Trapped II, Battle Duel, Genetic Species, F1GP Editor...



Magazine: This is where you'll find most of the bits that tie-in directly with CU Amiga Magazine. This month there's CG fonts and browser demos.

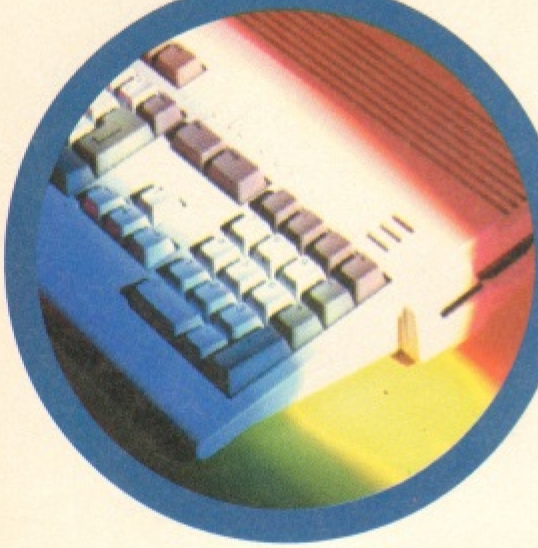
If your CUCD does not load

If your CD does not load contact Diskxpress on 01451 810788. If they advise that the CD is faulty send it along with a SAE to: CU Amiga Magazine Disk Returns, Diskxpress, 7 Willow Court, Bourton Industrial Park, Bourton on the water, Gloucestershire GL54 2HQ.

Please note that some CDs will not autoboot on systems other than CD32s, so try loading it from Workbench first.

CUCDs will work with almost all Amiga configurations and filesystems. However, we recommend older CD filesystems be replaced where possible.





News

Amiga International License Micronik

Petro Tyschtschenko, president of Amiga International, has announced the first of what they hope will be many licensing agreements. Micronik's Amiga clone tower systems will now be produced under an Amiga International license and bear the new Powered by Amiga logo. The Micronik Towers, the first third party products to bear the official stamp of approval, are available in a range of options. The Infinitiv A1300 is a tower system without a bus board. The Z2i bus board comes with five Zorro II slots, two PC-ISA slots, two PCI slots (for use with a Pentium daughter board only) and an optional video slot makes the basis of the Infinitiv A1400 tower system. The latest and most powerful system, the Infinitiv A1500 boasts the impressive new Z3i bus board,. which is similar in specification to the Z2i but supports Zorro III as well as Zorro II, comes with a SCSI-2 controller on board, and it also has an A4000 style CPU slot, that gives it all the functionality of an A4000.

In other developments, Amiga International will soon be announcing a new head of its Amiga arm of Research & Development. The new head of R&D's first job is to create a strong, central engineering team with strong Amiga backgrounds – to take Amiga R&D forward. Gateway will fully announce this key position in the near future.

powered by AMIGA



Fastest 680x0 Accelerator Yet

Eyetech are about to unleash a 66MHz, 68060 accelerator board for the A1200. Made by ACT Electronics, known for its Apollo line of accelerators, the new board plugs straight into the accelerator slot on any standard, non-tower A1200. It also has a single, auto configuring SIMM slot which will take single or double sided SIMMs of up to 32Mb.

The 66MHz speeds are due to the latest developments in Motorola's manufacturing processes.

Eyetech claim the 1997 mask revision allows the CPUs to operate up to a sustained 75MHz, although Motorola do not currently ship 68060 processors in a version officially listed as 66MHz.

The CPU speed was chosen below its sustainable performance of 75MHz, to avoid overheating the processor in the small space of an A1200 desktop case. Tower users who may be able to run 75MHz versions, could also fit second SIMM slots, at time of purchase or retro fitted, allowing them 64Mb of RAM in total.

Price: £399.95, inc VAT.

Second SIMM slot £20. Details from Eyetech on 01642 713185.

Ateo Expansion Bus Gets Faster

French hardware company Ateo Concepts has redesigned its expansion bus board to make it even faster than before, and say's that 'The change in design is due to the demands for higher bus speeds'. Ateo is hoping to get the board out by early Autumn.They also claim 'The redesign will allow a significant increase in bus speed, allowing the board to compete properly'.

Patent delays mean that details of the board are still slow in coming, but Ateo has said that the board is designed to work in a tower case as a direct rival to the Zorro busboards produced by Eagle and Micronik. The board is projected to sell at around the £150 mark including a graphics card. The original specification was based on the old Cirrus Logic GD5434 chip which Village Tronic used in the Picasso II, but due to supply problems this has changed. A more up to date Cirrus Logic chip will be used, and will ship with 2Mb of video RAM. They claim the new card is equivalent in power to a Cybervision 64. The retarg software for the card will be based on the Picasso 96 RTG system.

The nature of this expansion bus has excited a certain amount of speculation. CU Amiga has it's theories, but Ateo stated that the bus type is "a standard in the industry but not Zorro". Ateo claim further releases of off the shelf products will include; an Ethernet card, an I/O card and a SCSI controller. The driver software for each of these units is currently being written.

Ateo has offered help for anyone writing driver software for any of its products.

Nova Design Crossgrade Offer

Nova Design are offering a 'cross-grade' for purchasers of the new version 5.0 of Aladdin 4D. Owners of Aladdin 4D can buy Nova's other big name product ImageFX at $124.95 US when ordering the $99.95 upgrade to version 5.0 of the 3D package. Conversely, owners of ImageFX can order the upgrade of Aladdin 5.0 to get the full package for the upgrade price.

Aladdin 4D version 5.0 now sports; a proper Workbench style interface, CybergraphX and Toaster support, full integration with ImageFX, a new lens flare system, spline based motion paths, ARexx support, real time texture previews and a lot more. Nova Design of Richmond, Virginia can be contacted on (+1) 804-282-5868

Gateway Bring Cow to New York

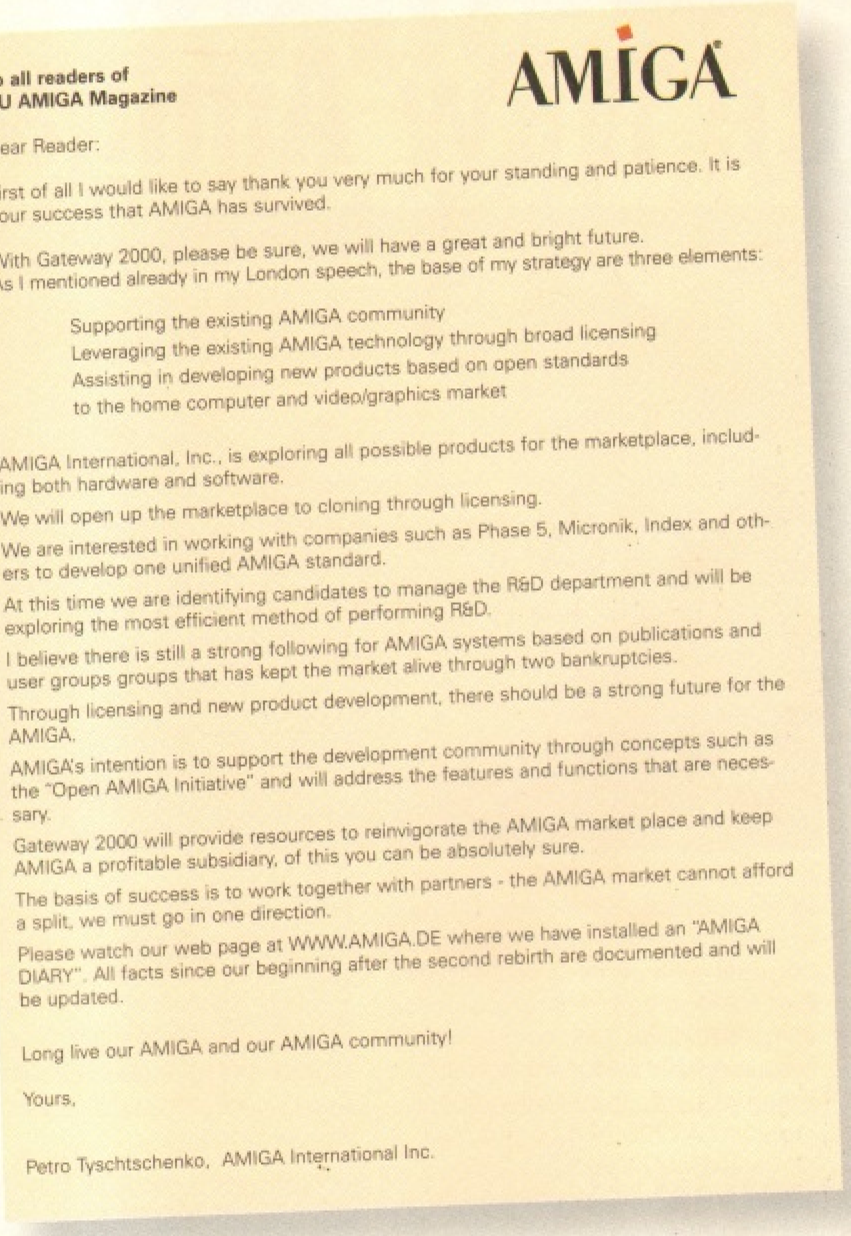
Gateway 2000's CEO Ted Waitt celebrated the listing of his company on the 'Big Board', the New York Stock exchange, with a cow. Traditionally, when a major company joins the big board, the CEO of that company is invited to ring the bell signalling the opening of trading on the first day that they are listed. Ted Waitt was accompanied by one of the corporate mascots, a Holstein Cow, who wore a bell around her neck and is the first bovine in history to ring in trading on the NYSE floor.

MetalWEB Debuts

Spanish software company Multitaskers, authors of BurnGUI and DMSGui, have released the first version of their shareware HTML page creation utility MetalWEB. It is a true WYSIWYG web page creator with full drag and drop control. The authors claim the package makes web page authorship possible even for Amiga users without any knowledge of HTML scripting. You can contact Multitaskers via E-mail at Multitaskers@redestb.es.

MetalWEB

Letter From Petro


To all readers of
CU AMIGA Magazine

AMIGA

Dear Reader:

First of all I would like to say thank you very much for your standing and patience. It is your success that AMIGA has survived.

With Gateway 2000, please be sure, we will have a great and bright future.
As I mentioned already in my London speech, the base of my strategy are three elements:

Supporting the existing AMIGA community
Leveraging the existing AMIGA technology through broad licensing
Assisting in developing new products based on open standards
to the home computer and video/graphics market

AMIGA International, Inc., is exploring all possible products for the marketplace, including both hardware and software.

We will open up the marketplace to cloning through licensing.

We are interested in working with companies such as Phase 5, Micronik, Index and others to develop one unified AMIGA standard.

At this time we are identifying candidates to manage the R&D department and will be exploring the most efficient method of performing R&D.

I believe there is still a strong following for AMIGA systems based on publications and user groups groups that has kept the market alive through two bankruptcies.

Through licensing and new product development, there should be a strong future for the AMIGA.

AMIGA's intention is to support the development community through concepts such as the "Open AMIGA Initiative" and will address the features and functions that are necessary.

Gateway 2000 will provide resources to reinvigorate the AMIGA market place and keep AMIGA a profitable subsidiary, of this you can be absolutely sure.

The basis of success is to work together with partners - the AMIGA market cannot afford a split, we must go in one direction.

Please watch our web page at WWW.AMIGA.DE where we have installed an "AMIGA DIARY". All facts since our beginning after the second rebirth are documented and will be updated.

Long live our AMIGA and our AMIGA community!

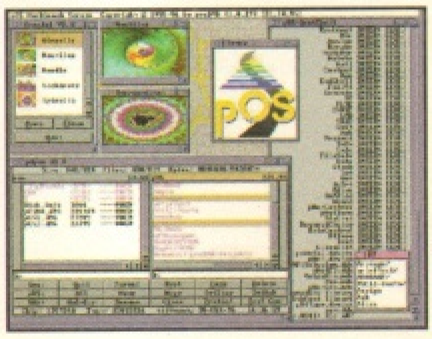
Yours,

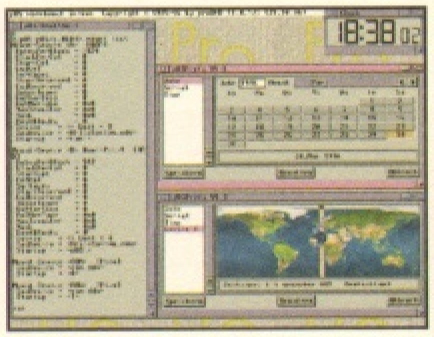
Petro Tyschtschenko, AMIGA International Inc.

Many readers have contacted us looking for re-assurance since the Gateway 2000 buyout of the Amiga. Who better to give it to us than the President of Amiga International, Inc.?

pOS Pre-release

The pre-release CD version of Pro-Dad's Amiga replacement operating system pOS is due in mid July. The CD will feature a complete pOS workbench with; a task manager, taskbar and drag and drop windows, pOS shell, a DOpus like disk filing system, an HTML viewer, UNIX emulation, a datatypes like file type viewing system for various graphics, text types, and a selection of demos like fractal generators and some Workbench games. Limitations are that it runs parallel to Amiga OS rather than as a replacement. pOS pre-release requires an '020 Amiga with 4Mb RAM and hard drive as minimum. Full release and PowerPC versions will follow.





News in Brief

Golden Image New Products

Golden Image have announced a new range of products, mostly from the Elaborate Bytes/Individual computers lines. They will be stocking the Catweasel in A1200 and A4000 versions at £55 each, the Buddha IDE interface Zorro card also at £55, and the Buddha plus Catweasel Zorro cards at £79 – look for a review of this product next month. Also announced is the black Amiga logo 400dpi mouse at £9.95 including P&P and the GI Quatro 4 way IDE interface including registered IDEfix '97 for £59.95. Contact Golden Image on 0181 900 9291 for more details.

Sadeness Sign Foundation

Sadeness software has announced it's first game release, Foundation, due for release in the Autumn. Sadeness has signed author Paul Burkey to it's label as, they hope, the first of many. Citing the competitiveness of the CD-ROM market as the reason for expanding into games, Sadeness has stated their intention to sign up other games developers producing innovative and impressive new games. You can find out more about Foundation in our sneak preview on page 36.

Weird Science Moves

Top Amiga CD-ROM company Weird Science has moved to a new, larger premises in Leicester. A new showroom which should be ready in mid July, will be displaying Wierd Sciences large range of CD-ROMs, but will also be extending operations into games and hardware. The showroom will be stocking Vulcan and Guildhall titles, and high-end hardware, including Micronik Towers and phase 5 accelerators. Weird Science has told us that if it can source Amiga motherboards it will sell complete towered up Amiga packages. The new address is Weird Science, Q House, Troon Way Business Pk, Humberstone Lane, Leicester LE4 9HA. Tel: 0116-2340682.

Index Information Announce New Amigas



Index Information have announced the imminent release of a new Amiga computer system, with more to come by Christmas. The first product is the Access, based on a redesign of the A1200 motherboard. The product lines to follow are the Connect, an OEM motherboard, and the InsideOut, a next generation Amiga system.

Index Information are a British company who specialise in multimedia display solutions and Point Of Sale equipment. They produced the seven screen multimedia show on board the HMS Belfast and the innovative interactive displays were used in the London Transport Museum.

The Access is intended to ship as a POS (Point Of Sale) and multimedia display platform to replace their very succesful CD32 based system. Improved efficiency in the circuit design has enabled them to shrink the circuit board to fit into a 5.25" drive bay. Index told us that they've managed a few minor improvements, including fitting a 3.5" IDE interface and better ChipRAM access giving a 30% speed increase. Access is designed to be fitted into tower cases as part of a flexible modular system.

Index will be supplying a half height case version with floppy drive and CD-ROM. The CD-ROM can optionally be replaced with a hard drive or the floppy drive with an LS120, a 120Mb rival.to the IOMEGA Zip, which can be used as a removable hard drive. Other features include 15 pin VGA output, real time clock, 2 or 8 Mb of Fast RAM, a built in sound sampler, and an ISA slot which can be supplied with a modem or an Ethernet card. The machine uses standard A1200 ROMs, but also has a 256k Flash ROM which stores the CD-ROM drivers and can be updated to cover any future upgrades.

Even more interesting is the plans Index have for the future. They are planning launches by the end of the year for their mid and high-end systems, the Connect and the InsideOut. Connect is an AT style motherboard which fits straight into standard PC cases and is entirely A4000 compatible. It will be supplied to OEM dealers who can use it to produce custom build Amigas. Systems should start at £6-700. Index are tight-lipped about the Inside Out, but see the specs below. The only additional information given was that when they showed Gateway 2000 what they had after the WOA press conference, 'a lot of jaws dropped'. Index plan to release the InsideOut as a complete system at around £1000. Significantly, Index are very nearly the second company to gain an Amiga License.

Specifications

Connect:

- Baby AT size motherboard
- A4000 compatible
- CPU slot for any '040 or '060 processor
- 2Mb Chip RAM and up to 128Mb Fast
- 4 x Zorro III slots, 4 x ISA slots
- 1 x Amiga video slot
- 4 IDE device support
- CD-ROM audio input and mixer

InsideOut:

- Compatible with all Workbench apps
- RISC processor performance
- Full retarg to 1280 x 1024 24 bit display
- Optional 3D Accelerator card
- Fully implemented PCI bus with wide software support
- TCP/IP and NetBIOS network support

News in Brief

Epic/Islona label Expansion

Epic's move into the games market continues at a pace. They have announced that they'll be handling re-releases of XP8 and Pinball Prelude at under £10. A CD version of the Sid Meier classic Civilization is also in the pipeline, produced in co-operation with Guildhall leisure. Alien F1 is continuing development under the new title F1 Challenge, and although Italian Author Paolo Cattani is doing national service, Epic is confident this won't cause a major delay. Epic has also told us that it's signed exclusive distribution deals for Vendetta and Trapped 1. Adventure game Sixth Sense Investigators nears release and Epic say there are more games on the way than they can keep track of.

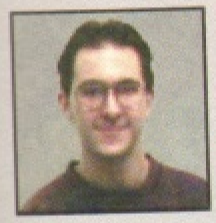
Epic are making releases on the productivity front too. Products for the near future are EVP, a 'rave demo maker'[with 50Hz frame by frame image manipulation and AVid Pro, a complete AVI animation player with a suite of animation conversion utilities. They will also be releasing some multi CD sets such as the awesomely titled 25,000 photographs. Call Epic Marketing for more details on 0500 131 486.

Championship Manager 2?

Eidos Interactive have promised us that Championship Manager 2 is almost complete and release is imminent. Although Eidos haven't shown any great commitment to the Amiga market and have said that they've no further plans to support the Amiga, the team which is producing CM2 are pushing to complete the project so they can begin development of their new project Championship Manager All-stars.

COMING SOON TO CU AMIGA MAGAZINE... SEE PAGE 18!





Stateside News

by Jason Compton: Jason Compton is Editor in Chief of Amiga Report Magazine

PhonePak Comeback

OnLine of Sylvania, Ohio has announced that it has stepped in and purchased the rights to the PhonePak software. The company's first priority will be to provide support and upgrades to existing PhonePak customers.

PhonePak was a voice mail and fax centre on a Zorro card, with a monstrous number of little chips on it and a couple of innocent-looking phone jacks, which when paired with some unattractive but functional software gave an inexpensive but professional-seeming office phone networking system. They are still traded in the Amiga second hand market, though they've been out of production for quite some time.

GVP built the boards but they had their own problems and went out of business. Revived a couple of years ago, GVP has not 'got around' to restarting PhonePak production, partially because the hardware and software had different owners. This problem has now been taken care of.

The future plans for a re-release are as yet not firmly decided, but the board will not return in its old form because of the high cost of the original design. Voice mail-capable modems are being investigated.

For more information, contact OnLine at PO Box 8142, Sylvania OH 43560 USA or at http://members.aol.com/on8142.

Two North American Shows Coming Up

Breaking what looked to be a year-long dry spell of major Amiga-only events in North America, two groups have announced plans to bring several well-known Amiga events back to North America.

The Amiga Central Ohio Network (AMICON) is bringing back the Midwest Amiga Exposition. Last year, the MAE brought a brisk crowd from across the American Midwest and East, featuring Nova Design, Nether Realm Software, and a host of dealers and user group exhibitors as well. This year's show is planned for September with organisers promising that it will be even bigger than last year's event.



AMUSE of New York is bringing an old tradition back to its city. The AmiExpo, which was started by AMUSE members, is being revived and will be the first large Amiga show in New York since Commodore cancelled the WOA New York show in 1994 shortly before its bankruptcy. The group says that it's working with other user groups to make the event come together. The AmiExpo is planned for October 25th and 26th and rumours indicate that a Manhattan site may be chosen.

For more information on the MAE, contact AMICON: PO Box 18311, Columbus OH 43218 USA or see the web site at www.amicon.org. For more information on AmiExpo, contact Livingston Hinckley at 001 212-963-9399 or see the show web site at http://www.freeyellow.com/members/amigatv.

Scientific Amigan Returns

Robert B. Pigford, or as he's known in the US, Dr. Frankenstein, has revived Scientific Amigan.

SA's newsletter informed on science and technology related applications of the Amiga computer worldwide. It had a small but well-educated following, but after 18 months of publication, it folded in mid-1995, a result of the failure of Amigas used in its production and the tenuous North American Amiga marketplace of the time.

Pigford has purchased the rights and the back library of SA and is reviving the resource to be published online, Pigford will still provide hard copies of back issues of SA, and presumably of forthcoming resources as well.

For reprint inquiries, contact RBProductions at 835 West Warner Road, Suite 101-251, Gilbert AZ 85233 USA, or check out SA online at http://www.goodnet.com/~cyrano/sciam/index.html

Argent Ethernet

Digital Lightyear Technologies says it's entering prototype stage with its Argent Ethernet card, first announced at the March St. Louis Amiga '97 show.

It wanted to create a low-cost, fully compatible Amiga Ethernet card and to make it more affordable than earlier market entrants. DLT is currently projecting a price of US$100, considerably less than current competing products. An A1200 version which would reside on the suddenly popular clock header has also been considered.

The card is a Zorro-II autoconfig card, perfectly suited for any Amiga slot-box or A1200 Zorro tower conversion. In addition to in-house design, DLT is calling upon former VIScorp software engineer Jim Goodnow, who also penned the ageing AztecC, for network software support.

Digital Lightyear is currently taking inquiries from dealers with September being the optimistic release date. For more information, contact 1517 105th Ave. Ct. E, Edgewood WA, 98372 USA, or 001 206 927 3817.

Microcode Product Changes

Microcode Solutions, responsible for PCx and Emplant, has made changes to its upcoming product roster. Despite being announced and prematurely reviewed in some publications, Microcode is delaying its Apple II and Atari 8-bit emulation CD because Atari emulation has been scrapped in favour of a new program, "WACKE". Jim Drew of Microcode says that the new code is being ported from Macintosh PowerPC source code and offers superior compatibility, although it does require greater resources to run. Target machines will also now need an '030/50. With no projected release date for the new Atari/Apple bundle, Drew blames poor consumer response for lowering the project's priority.

Microcode also claims that Fusion, its new Macintosh emulator, is now in final pre-production testing and will offer a new feature – an Inner-Communications Port (ICP) making Macintosh and Amiga resources more accessible to both machines.

PCx 2.0 is in progress but has no release date. A completely re-written CPU Transcription core is promised for greater speed.

Inquiries on Microcode products should be directed to Blittersoft on 01908 261466.

Order: CD440 UK: £29.99 - AUST: $60

Flyin' High — 4mb AGA Amiga

AGA Experience 3 is the latest collection of AGA tools, demos, graphics, games etc. This release contains 100% new material and will make a great addition to any A1200/A4000 owners CD-ROM collection.

Order: CD432 UK: £12.99 - AUST: $26

AGA Experience 3 — AGA Amiga

UFO Encounters contains thousands of documents and images that "no-one" wants you to see. The CD covers all aspects of Abductions and UFO Sightings. Suitable for use on any Amiga.

Order: CD179 UK: £14.99 - AUST: $30

UFO Encounters — Any Amiga

Contains a wealth of software, including: Workbench Games, Fonts, Textures, Clipart, Samples, Multimedia Backdrops, Music modules, Business Letters, Tetris Games, 3D Objects, Images, Backdrops, Tools and more.

Order: CD449 UK: £19.99 - AUST: $40

Software EXPLOSION! — Any Amiga

Network CD2 is an ingenius piece of software and cabling that allows you to use your CD32 as an Amiga CD-ROM driv.. Easy to use. Access times are slow compared to a proper CD drive but this is a far cheaper option.

Order: CD14 UK: £34.99 - AUST: $70

CD32 Network CD 2 — KS2/3 2mb

Assassins Games 3 is a bang-upto date collection of the latest available Public-Domain Amiga games. Each game is acceesable through an easy to use menu that displays the games instructions and requirements etc.

Order: CD408 UK: £19.99 - AUST: $40

Assassins Games 3 — KS2/3 2mb

Das Epic Multimedia Lexikon is the long awaited German version of our popular Amiga - based Encyclopedia. It features a new interface, Thousands of articles, music, pictures, animations and more.

CD446 UK: £24.99 - AUST: $50 - Deutschland: 75 DM approx

DAS EPIC LEXIKON — AGA Amigas 4mb+

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Order: CD451 UK: £12.99 - AUST: $26

The Games Room — KS 2/3

Create your own professional music videos using ANY music CDs and your Amiga. Combine images, animations, text, and 3D graphics to create spectacular videos and record them to any video recorder and keep them for ever.

Order: CD439 UK: £5 - AUST: $10

VIDEO CREATOR AGA — AGA Amiga's

Emulators Unlimited is a collection of the best software emulation tools available. The CD contains emulators for Apple Mac, PC, Spectrum, Commodore64, Amstrad, BBC and many more. Virtually all the emulators are supplied ready to run and come complete with many games to run. Easy to use on any Amiga.

Order: CD117 UK: £19.99 - AUST: $40

EMULATORS UNLIMITED — All Amiga's

The re-compiled C64 Games CD includes around **15,000 all-time classic Commodore 64 games.** It's very easy to use and the CD has a complete index of every game so you can locate the game you want very easily.

Order: CD182 UK: £29.99 - AUST: $60

C64 GAMES ARCHIVE — KS2/3 2mb

Sound Effects Sensations Volume One includes all the tools and data you need to be able to produce either music or Sound FX sequences on your Amiga.

Includes over 15,500 samples.

Order: CD165 UK: £14.99 - AUST: $30

SOUND EFFECTS CD Vol:1 — All Amiga's

John Pasternak's Movie Maker: Special Effects Volume one is an interactive guide to producing low cost film special effects - This release includes: Removing an eye, cutting open an arm, making realistic firearms, and producing latex face masks. Suitable for ages 16 and above. (includes tonnes of film footage and voice-overs)

Order: CD184c UK: ~~£19.99~~ £3 - AUST: ~~$40~~ $6

MOVIE MAKER Vol:1 — 4mb AGA Amiga

The Aminet range of Amiga CD-ROMs are the worlds most distributed Amiga CDs. Each contain the latest Games, Demos, Animations, music and tools.

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AMINET 19 — KS2/3 recommended

Aminet Set 4 is a 4CD set of all the best and latest from the Aminet internet site. Includes over 3.5gig of compressed data. Includes a very fast and powerful search routine.

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Tales of Peter Rabbit — Any Amiga

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Strictly Over 18years only.

Order: CD191 UK: £19.99 - AUST: $40

Anime BABES — All Amiga's

A high quality professional Texture CD containing over 1000 "seemless" texture files, great for 3D renderers or multimedia presentations etc.

Order: CD227 UK: £14.99 - AUST: $30

1078 Weird Textures — AGA Amiga

Mick Davis' Cartoon Clipart Volume One contains 500 commissioned high quality professional clipart images, all of which are royalty free. It's supplied on one CD and comes with a 30+ page booklet showing all the images in "thumb nails". Every Cartoon image on this CD is 100% original and does not/will not appear on any other CD. A great value, high quality product.
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Order: CD448 UK: £39.99* - AUST: N/A

Master PHOTOS — AGA Amiga

The Epic Encyclopedia 1997 (2mb version) is the full version but suitable for use on a standard A1200.
Some features have been removed to allow it to run on 2mb ram.

Order: CD422 UK: £29.99 - AUST: £60.00

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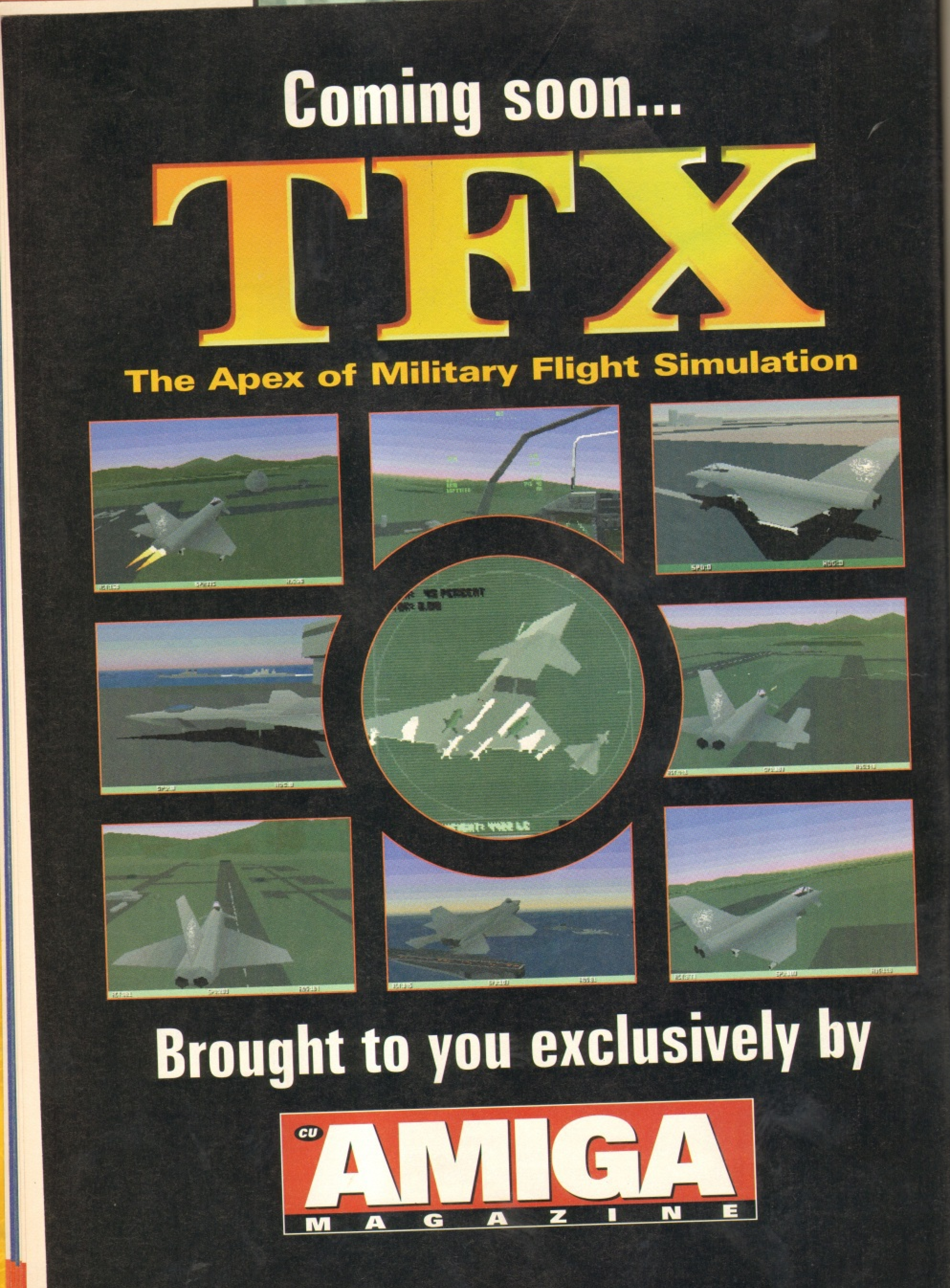
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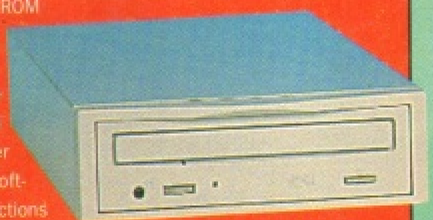


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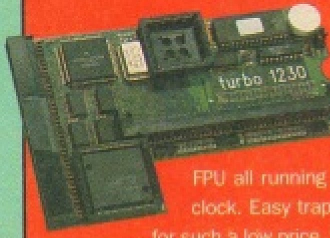
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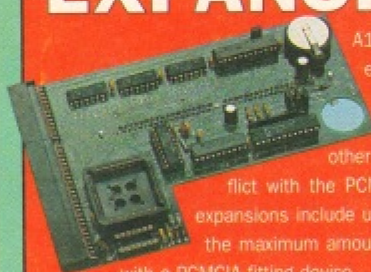
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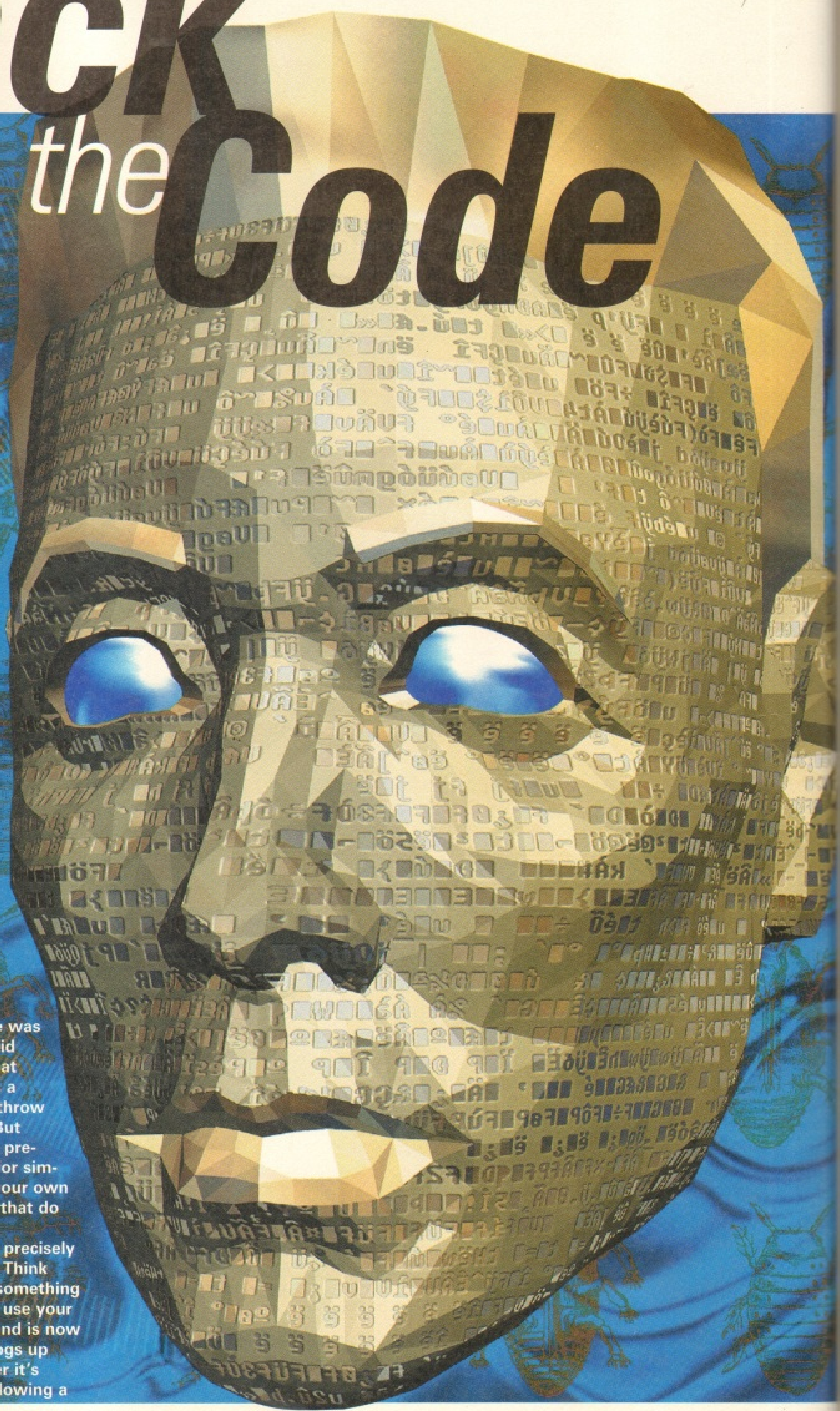
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Crack the Code



Bored of programs and utilities that never seem to do exactly what you want them to? Now is the time to take full control of your Amiga, your own software and learn to program for yourself.

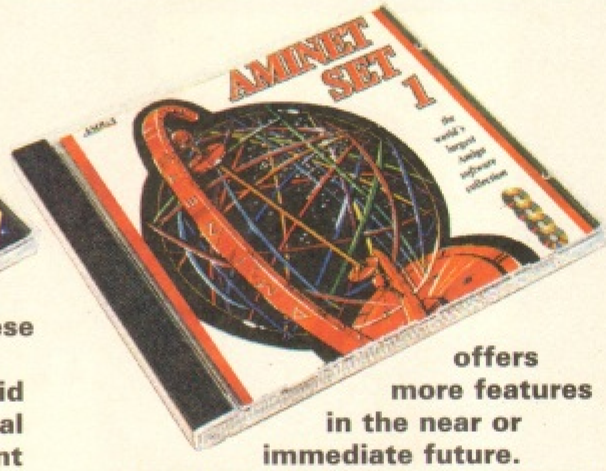
Scary! Just the mere mention of programming can have the effect of making otherwise confident computer-literate users feel more technophobic than the staunchest Luddite. But it needn't be that way. Once you've confronted the initial apprehension, it quickly becomes apparent just how useful, fun and rewarding programming can be.

Wouldn't it be great if there was a small tool or program that did XYZ? Everyone's thought this at some point and in many cases a quick scan of the Aminet will throw up a few potential solutions. But there's no substitute, if you're prepared to put in a bit of work, for simply sitting down and writing your own highly personalised programs that do *exactly* what you need.

No one uses their Amiga in precisely the same way as anyone else. Think about it: there's bound to be something you do almost every time you use your Amiga that was once a pain, and is now just a part of a routine that clogs up your Amiga sessions – whether it's converting files by hand or following a

Shareware works





Do it yourself distribution works well with Amiga software. You would have a hard time of it trying to sell an Amiga application to a major conventional-style software distributor for sale in high street shops, but that needn't put you off coding a masterpiece. Shareware has been proven to work, both as a distribution system and a revenue earner. Aminet is the hub of the Amiga shareware scene, used by amateurs and professionals alike.

The shareware concept is simple and effective. First of all you create your program. If it's sufficiently advanced to be of use to others, you can upload it to Aminet or distribute it via other Internet means or via shareware libraries. With this first release, you include some text that requests a small registration fee (typically between £10 and £20) from anyone who uses the program on a regular basis. In return, the user will be logged as a registered user and, for example, become entitled to future updates to the program for absolutely no charge.

The terms of the registration can differ depending on the nature of the program, the author's wishes and so on, but these terms would be laid out in the original registration document that is included with the program. For example, if a major rewrite of the program is pencilled in for some time in the future, the author may deem that the initial registration only covers updates from, say, version 1.0 through to 2.5. On the whole though, registration of a program should be valid for the whole course of the program's development.

It's also quite common for the 'freely redistributable' version to have limitations such as a lack of ability to save out projects, or perhaps a shortened list of features. These would be re-instated on registration. This tends to be the case with more advanced programs, whereas often a version 1.0 release will have all of its features intact from the outset. Either way, registration offers more features in the near or immediate future. Another method is to use Aminet and so on to distribute an almost totally functional program which requires a small personalised 'key file' which is sent to the users on receipt of the registration fee.

In order to get the registrations rolling in, you first need a good program. This could be anything from a tiny utility to a major application, although registrations are more likely to come from well written, useful applications. Don't expect to make a living from people registering your Clock-on-the-Workbench type creations. It is possible to make substantial pocket money or even scrape a living from writing shareware, but don't expect an overnight rags-to-riches scenario. The best way to approach it is as a hobby, which might even pay for itself in time.



▲ **Gloom: Acid Software's 3D gorefest in Blitz Basic, and runs fast on 030s, can be linked up and shows what even simple programming languages can do.**

laborious start-up and configuration routine each time you begin a new project – a few ARexx scripts could have the whole thing done for you at the simple touch of a button.

Or maybe you're forced to use (gulp) 'another platform' to perform certain tasks alongside your Amiga, just because there's no Amiga software that does the job. A nice bit of C code should sort that out. Perhaps you really need a program that interfaces directly with a bit of generic hardware that never got any Amiga software support. Hell, you might just want to write the next 'killer app' or port Monkey Island III to run on your Amiga. No-one ever said programming was easy, but you can do it if you have the urge. Just look at the size of the Aminet archive, creaking under the strain of Gigabytes of software coded by Amiga users from around the globe, proof that programming is not the preserve of the rocket scientist. In fact, the ability to program your Amiga in all kinds of ways, at all different levels, is one of the unique aspects that makes this scene so vibrant. Why on earth should you miss out?

Genesis

It's encouraging to remember that all of these people currently banging out everything from small utilities to major applications and games started out knowing absolutely nothing about programming. Maybe that's where you're at now, or maybe you've had some previous experience, in which case, you've already got a head start.

But what is it that attracts people to get their head down and learn how to program their computer? The main five reasons appear to be:

1. Creativity

You are only limited by your imagination in what you can construct. In the extreme, a program can be considered to be a form of art, especially as each program is individually pieced together. Just as a skilled sculptor can fashion masterpieces from things like garden waste and dead animals, a programmer can provide elegant and efficient solutions for even the most mundane tasks, like editing text. The biggest reward for a programmer is the final creation, in all its functional glory. And once you've had a taste of this great sense of achievement you'll be hooked: it won't be long before you're embarking on another project just to get your fix.

2. Helping others

There are many social rewards in sharing your knowledge, expertise and even your code. This is probably the main reason



Get stuck in

Jump straight to page 80 now for the start of our tutorial on C programming for the Amiga in conjunction with this month's cover mounted Storm C compiler.



▲ Here's DrawStudio: a typical example of an Amiga application that was programmed in C. There are 100s of top programs that are coded in this versatile language.

why so many people co-operate to make Aminet the massive success it is. Another benefit from interaction with your peers (all programmers are equal!) is the competition it creates. To take a concrete example, the current rivalry in the world of web browsers brings huge advantages to everyone involved. AWeb, IBrowse and Voyager have been trying to trump each other in the features stakes for a while now. This has rapidly increased the speed of development of these tools and forced them to be aggressively priced. But it's far from over: none of them yet support Java so there's a lot of fighting left to do!

3. The challenge

Many software solutions are extremely complex, and usually necessarily so. However, it is often the case that the main complication is not in providing a solution (however elegant), but in making that solution efficient: it must be fast and must make sparing use of limited resources such as memory and disk space. But more often than not, these time and space constraints are contradictory requirements.

Efficiency is always the prime concern and, simultaneously, it is the major obstacle. The design and implementation of efficient (and correct!) algorithms is therefore one of the most demanding aspects of programming. Luckily, human nature is such that many people thrive on the most exacting challenges. If it's not challenging and forcing you to find solutions within your code, then for many, it's probably not even worth the effort...

4. Earning a crust

Of course, it would be foolish to omit the obvious reason why a lot of people ultimately find programming interesting. A profession in computing can be a simple extension of a hobby, or it can be something for which you train for many years. But, unless you're really brilliant, prolific or lucky, you're unlikely to make a fantastic living from distributing your products as shareware. Finding and successfully fulfiling a niche in the market would give you a definite edge but, at the end of the day, shareware ought to be regarded as a means to finance a hobby.

So it's the commercial market which attracts many programmers and there are many jobs on offer, that cover an astonishing range of salaries and benefits. The need for various programming expertise seems to be increasing at an alarming rate, which is not that surprising considering how heavily we rely on computers these days – that and the increasing complexity and speed of the systems that we need. Good commercial programmers are therefore in demand, across a wide variety of expertise and experience. But be warned. Many programmers would say that if you're in the business of program-

Which language?

There are many different computer programming languages, so it's important you pick the right one for your specific requirements. For now, we'll forget the likes of Pascal, Cobol, Fortran, Prolog, Lisp, Forth, Logo and so on, and concentrate on those most relevant to Amiga programmers. Take a little look at the panel elsewhere in this feature for an overview of the currently in-vogue Internet related programming languages.

AMOS

Difficulty: easy
Good for: simple games
Bad for: OS-compliant applications, fast games
Compiler status: development has now ceased
Notes: AMOS has a lot going for it, such as built-in scrolling and sprite commands and it's very easy to learn. However, writing non-games applications can be a pain as AMOS likes to disable the Amiga's operating system, although an intuition extension is available from the public domain
Examples: Valhalla, Dogfight (see cover disks)

C

Difficulty: hard
Good for: applications and games
Bad for: nothing
Compiler status: continual rolling development
Notes: C is a great all-rounder and is also very portable. C is widely used outside of the Amiga scene, which is a good thing if you want to take your programming skills into the workplace or to convert your Amiga creations for use on other platforms
Examples: Most Amiga applications

Amiga E:

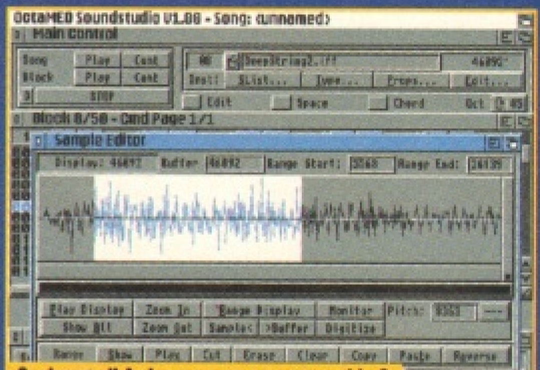
Difficulty: medium
Good for: applications
Bad for: portability
Compiler status: development has now ceased
If you're only interested in programming for your Amiga, E is a good choice, as it's an Amiga-specific language. It's similar to C, but is simpler and easier to get the hang of. Cover-mounted on December 1995 CU Amiga with a tutorial manual
Examples: Early Photogenics and Image Studio

Blitz Basic

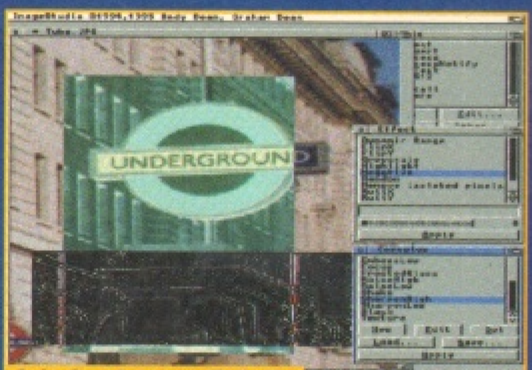
Difficulty: medium
Good for: lots of games and some



AMOS: easy to use but very limited



C: almost all Amiga apps are programmed in C



Amiga E: an Amiga specific C-alike

ming solely for the money, then you're never going to be that good, or that happy doing it.

5. Control
The least often acknowledged reason for taking up programming is also one of the darker sides of human nature: the need to exert control. Even something as inert and lifeless as a computer is a reasonable target for dominance. The fact that the display can be animated in various ways and the machine can mimic some of the things we would consider to be life probably makes it easier for us to justify subjugating it, however artificial it really is.

But is it fun?

It has been remarked that programming is the most fun you can have with your clothes on (but this in no way suggests that you have to wear clothes...). Okay, that's stretching it a bit, we admit. One thing is clear, though: fun is largely a matter of taste. If you need an extreme example, then just consider for a moment the fact that some people find gardening fun. Green-fingered readers can send all their complaints to 'Offended Gardeners', c/o CU Amiga...

Unfortunately there are always going to be a lot of things we never discover to be enjoyable, simply because we don't try them. Parachuting might well be a right laugh, but not many of us are actively considering jumping out of an aeroplane at 30,000 feet, with just a patchwork of old silk shirts between us and a very depressing (or compressing) end. Programming is similar (but it's also a lot less dangerous): we can't know if it's fun unless we are genuinely curious enough to want to try it out for ourselves.

Exploration is another driving force in a lot of people's interest in programming. Because it often takes a fairly shapeless form, this kind of work is often regarded as idle hacking. It's possible to derive a lot of enjoyment from just 'driving' around, admiring the views, so it's fairly safe to say that this can be fun. There is a flipside, though: the misuse of these investigative skills is widely publicised; newspapers often carry stories on some hacker compromising a network's security or bypassing other constraints.

Where to start

If you've never considered programming before and you think it sounds interesting then you're lucky, because you're already one step ahead of a lot of people. The Amiga is arguably the best computer you could use for programming. It has a small and fast Operating System that makes few demands on memory and disk space, and has for more than a decade contained features that are only now becoming widely adopted (such as pre-emptive multitasking and object orientation).

The Amiga is also blessed with many programming languages, from low-level Assembly, through C and C++, to the higher-level Oberon. There are also Amiga-



▲ Amatory: the heavy demands of demo programming today requires the use of a sophisticated language. Unfortunately, AMOS programmers need not apply.

simpler applications
Bad for: complex applications
Compiler status: development has now ceased
Notes: Blitz Basic aimed to combine the simplicity of Basic with ready made commands to handle graphics at speeds required by arcade games. It achieved this, and has been the basis for some classic games, such as Gloom and Skidmarks. It's a bit like AMOS, but done properly
Example: Gloom, Skidmarks

ARexx
Difficulty: easy
Good for: batch operations and remote control of applications
Bad for: stand alone programs
Compiler status: n/a
Notes: ARexx is a different kind of programming language, designed to interact with other applications that are running. ARexx can be used to remotely control applications to carry out tasks that would otherwise require long, laborious and repetitive mouse clicks (such as batch picture file conversion for example).

You'll notice from this little round-up that C comes out on top, which is why we've cover mounted the Storm C compiler on this month's disks and CD. That's not to say you shouldn't use any of the others. You should pick which ever is going to fit your particular needs.
Examples: ProPage Genies, Personal Paint macros

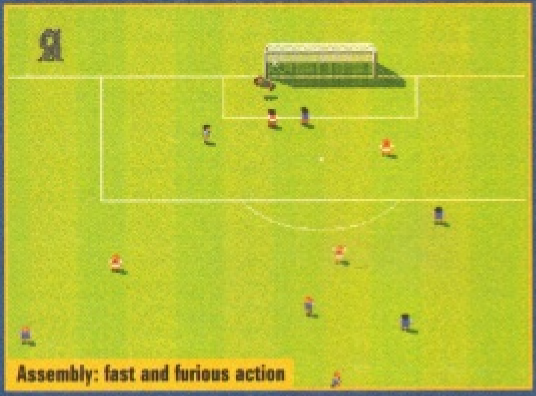
Assembly
Difficulty: hard
Good for: fast arcade games and demos
Bad for: Nothing in particular
Compiler status: development now ceased
Notes: Assembly language is a the closest you can get to talking to your computer in its native tongue. Other languages are based around systems and commands that are easier for us to understand. The main advantage of assembly is that it allows you to write the fastest, most optimised program code possible, which at times is essential. For example, the graphics routines required to drive multi-plane scrolling and sprite-based displays at 50 frames per second are best done with assembler. However, you will need a large brain and patience by the gallon to get anywhere with it.
Examples: PD demos and the majority of games



Blitz Basic: Skidmarks shows what can be done



ARexx: king of the macros



Assembly: fast and furious action

specific languages like the excellent Amiga E and the ever useful ARexx. The canonical starting point for beginners is usually some kind of BASIC (AMOS, Blitz and HiSoft BASIC are the main Amiga choices), but the most popular language generally is C (popular Amiga compilers include SAS/C, Dice, GCC and the relatively new Storm C). So prevalent is C that the official Amiga system guides (the ROM Kernel Reference Manuals) are biased strongly towards it.

Benefits

You could do much worse than investing your time learning C since it is practically the de-facto standard in industry, as well as the Amiga community. Skills learned during hobbyist programming with your Amiga in C are likely to be of great benefit should you consider a career in computing, despite the dominance of those PC things. Knowledge of C will also serve you well in 'upgrading' to C++ and Java, which are starting to chip away at C's dominance. In fact, support for C++ is usually included with your C compiler (e.g. GCC and Storm C). Unfortunately, there is no complete Amiga implementation of Java available yet, but this situation is likely to change very soon, and we'll likely be inundated with different versions!

Many colleges and night schools do courses in C, and there are lots of very good books on the subject. But, once you've got the core concepts under your belt there's no substitute for experience (and perseverance). Write as many different kinds of program as you can, and practice turning designs into reality. Learn how to use a good programming style (eg, OOP) and learn how to test the finished products thoroughly. Fixing the errors in your programs (debugging) is a black art practiced by all programmers. Being good at debugging is sometimes more important than creating the code in the first place, and it is debugging that will ultimately teach you more about programming than anything else.

Use resource, Luke

The great thing about having a huge repository like Aminet is that you're almost certain to find tools and even sources that will help you with any project you choose to work on. For instance, there are a number of GUI builders which allow you to visually create a GUI. Coding a GUI by hand is instructive the first few times you do it, but after a while it becomes a real chore. Thanks to Jaba Development you can take much of the pain away and draw your GUI using a program called GadToolBox (which is giftware: your only obligation is to send the author a gift if you like it or use it regularly). There are other such GUI builders available, but GadToolBox is often recommended and suits most basic needs.

Then there's the Amiga's shared libraries. These are collections of useful routines that many different programs can use. For instance, the iff.library contains routines that greatly simplify the loading and saving of IFF pictures. Why go to the bother of writing the code yourself when you can just make use of some other person's fine efforts?

Another massive resource that is easy to use (if you are connected to the net) and extremely beneficial is other users' experiences. Joining a dedicated mailing list or reading the Amiga newsgroups will instantly put you in contact with thousands of like-minded people. You'll find loads of people who've been down the roads you're travelling, and they'll know which is the best route and how to avoid some of the larger pot-holes. After all, learning from experience (our own or other people's) is allegedly what sets us apart from monkeys...

Jason Hulance

Coding for Internet



Internet programmers are now in great demand.

Now there's a whole new chapter in the programming story: the Internet. The easiest of all Internet programming languages is Hyper Text Mark-up Language, or HTML. HTML is the system used to construct world wide web sites from the basic building blocks of of text and graphics. The principles are quite simple and easy to grasp, and there's currently quite a demand for HTML coders as the world and his wife scrambles to try to make their online presence more prominent.

Java script is taking over on the Internet. Vastly more advanced than HTML, it is actually possible to program applications with it, and it makes up the core of many interactive web sites. Although there is no Java 'virtual machine' to run Java on the Amiga yet, two rivals are due this summer.

C vs. C++

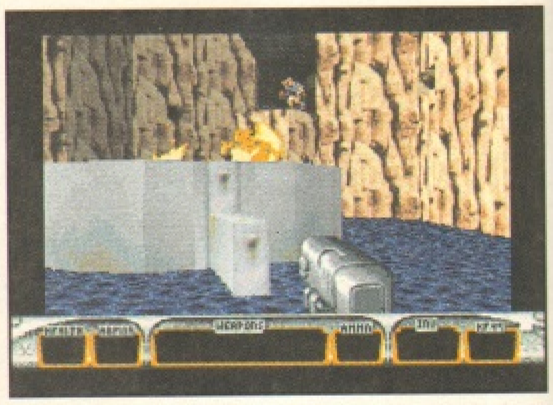
People seem to think that all those + symbols mean that C++ is better than C and they should learn that instead. Not true. C++ derives from C, so learning C first helps. What's more C++ has higher system overheads and is harder to program. The most important difference is the support in C++ for exception handling and Object Oriented Programming, a subject beyond the scope of this feature. Put very simply, OOP drops the linear structure of traditional programming in favour of a system of separate code 'objects' which are examined in parallel, widely used in expert systems and modular control systems software. One bonus is that C++ coders can earn a lot of money. We strongly advise getting your head around C before progressing to C++.

Further reading

Our new programming tutorial will be moving quickly, and we want to concentrate on Amiga specific information which is hard to come by. We recommend you get a general C reference work such as Kernighan & Ritchie's The C Programming Language, widely regarded as the C bible, or Teach Yourself C in 21 Days pubished by Sams Publishing.







▲ Duke Nuke 'em on ShapeShifter plays very nicely with a graphics card and a 68060.

Power Gaming

More powerful Amigas are coming. The 68030 is pretty standard and PowerPC is on the way. So where are all the power games?

Myst is coming. Quake looks likely. We even played Duke Nuke 'em 3D on an Amiga the other day. Compared to the dross we have been seeing recently, these titles are on a whole new level. There are titles on the horizon, some of them Amiga specific, some of them conversions, which could make the Amiga a leading games platform again.

The new enthusiasm in the games market has raised a lot of hopes, but has also caused an enormous amount of confusion. Wild stories are being thrown about, and no-one seems to have a clear idea of what is possible and what is realistic. The first thing you have to know is that stock machines are unlikely to be well catered for in the future. It may come as something of a shock to many that the A1200, not just the A500, will be considered too low end to be concerned with by software houses. There is a tendency in the Amiga market for people to be wary of calls to upgrade, and there will no doubt be some resistance to this move from certain quarters. However, as the public taste for games has changed over the years, people want to play titles which do a lot more. In the space of time since the arrival of the A1200, PC users have had to upgrade continually to play games. When the A1200 first went on sale it was competing with PC systems with a 386/16 CPU and VGA graphics. Rich PC owners were going for 486 chips running at up to 50MHz with hard drives, SVGA cards and sometimes even CD-ROM drives. These were the PC equivalent of an A4000 with a graphics card at the time, yet those once aspirational machines are now two or three generations out of date. That the Amiga is anywhere at all when it is this far behind the rest of the world in development is a testament to the revolutionary nature of the hardware.

The truth

You will have heard a lot of reasons for the Amiga's decline as a games platform. The truth is quite simple. It was a matter of fashion. At around the time the A1200 was released, the big news on the PC was Wolfenstein 3D. Wolfenstein was enormously popular, and soon spawned perhaps the most famous computer game of all time – Doom. The 3D revolution was well under way, and has since had a massive effect on the computer games industry. Look across the shelves of any big games store and you will see that virtually every arcade game being released is 3D.

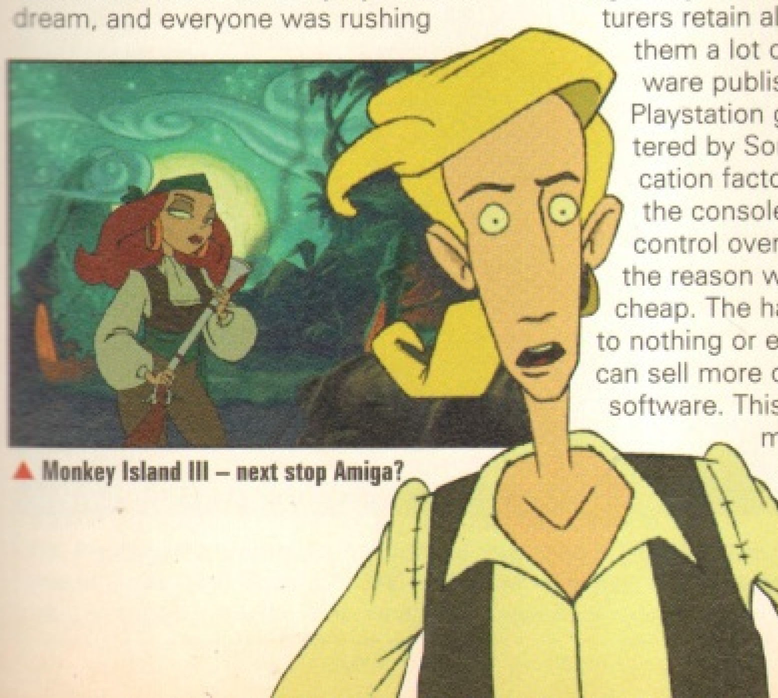
When the Amiga was originally



▲ Settlers 2 – currently fifth on the ClickBOOM wish list and ideal for Amiga conversion.

designed, a lot of thought was put into games capability. The blitter, playfield hardware scrolling, sprites, copper and so on. were all brilliant for the kind of games which were popular at the time. If you wanted to write a horizontal shoot 'em up with 32 colour sprites and scrolling so smooth you could put it in a car chase and call it James Brown, the Amiga was the only choice. There wasn't any thought given to 3D hardware for the simple reason that no-one thought that 3D hardware was a viable concept for a games machine cum home computer in the near future.

Although AGA is capable of higher resolutions and more colours, it retains the playfield structure most suited for the type of scrolling games which have largely gone out of fashion in the 32 bit era. Producing 3D games, even on an accelerated A1200, is hard work, and in the case of some of the most up to date games it's pretty much impossible. Software houses wanted to be seen to be on the cutting edge of games design and that meant creating the kind of games that were just too difficult to write on the kind of Amigas which most people had at the time. Rapidly any game for the Amiga started to look dated, even if it still played like a dream, and everyone was rushing into the PC and super console market.



▲ Monkey Island III – next stop Amiga?

Super consoles

The other thing that has happened in the games market in this period is the emergence of the super consoles. When the A1200 was released, the console kings were the SNES and the Sega Megadrive. These were both inferior to the A1200 in terms of hardware but had some good games and appealed to those who wanted nothing more than a games machine. Now we have 32 bit consoles such as the Sony PlayStation, the Sega Saturn and now the Nintendo 64. These use RISC CPUs more powerful than the best '060, and contain graphics chipsets capable of doing ultra fast 3D rendering, hardware texture mapping and so on. The Nintendo 64 actually contains a graphics chip based on the rendering engine used in the Silicon Graphics workstations.



The companies which manufacture the consoles retain a stranglehold on the production of software too. The consoles only run games which contain a small piece of code at the beginning, which the hardware manufacturers retain all rights to. This gives them a lot of control over the software publishers. For example, all Playstation games have to be mastered by Sony in their own CD duplication factory in Austria. This allows the console manufacturers lots of control over their market, and this is the reason why consoles are so cheap. The hardware is put out at next to nothing or even a loss so that they can sell more of the real profit maker, the software. This kind of approach has meant that £100 consoles are able to do as much as all but the most expensive PCs. Well if that's the case then what kind of chance does the poor old Amiga have then?



Mac Games.

There are actually a lot of seriously good modern games that run on the Amiga which most Amiga gamers do not know about. Until Apple started fitting Macintoshes with PowerPC chips, the hardware in an Apple Mac was very similar to that found in Amigas, and using a Macintosh emulator, it is possible to run many Mac games this way. There are heavy overheads to pay – an 040 and graphics card is needed to get the best out of them – but Mac titles such as Dark Forces and Doom 2 run very nicely under Fusion or ShapeShifter. One UK games company is working on 'transparent emulation' of Macintosh titles which will allow Macintosh games to be run direct from an Amiga with sufficient power. There are many problems to be solved, not least the fact that Mac emulation requires the user to get their hands on a snapshot of Mac ROMs, but if they can do this it will immediately make dozens of superb games available. The really good news is that Jim Drew, author of Fusion, has stated his intention to produce a PowerPC version. This should mean that almost any Mac game could be run on a PowerPC Amiga.

Power gaming

For a while we have been seeing a lot of Amiga games so poor that they would have been laughed at 10 years ago. Without the big names of the games market producing Amiga titles, a lot of cottage industry games companies have sprung up. Some of them have tried to keep the flame alive, others have been making money from a desperate market by selling games as commercial products which are barely good enough to impress as PD. Now things are beginning to change, and the average Amiga is now capable of doing a lot more.

For a very long time it has been assumed by the games industry that all Amiga gamers were running a 1Mb OCS machine with no hard drive. Nowadays the average gamer is running an '030, AGA machine with 6Mb and a CD-ROM drive. There are even gamers out there who have got themselves '060 processors and graphics cards to play things like Alien Breed 3D, Trapped 2 or XTR in maximum resolution modes and at decent speeds. These kinds of systems make conversions of current games much more feasible. Even the top of the



line Amigas with graphic cards aren't up to doing the most demanding 3D games, but there's nothing to stop them running 2D stuff such as Command and Conquer or Monkey Island 3. With PowerPC boards, a whole new world of gaming possibilities is opened up. There isn't a game on any platform today which requires a processor as powerful as the bottom of the line PowerPC processor. PowerPC based Amigas will still have to cope with the drag factor of the pretty but slow AGA chipset, but there won't be much a PPC Amiga couldn't do, and give it a graphics card and you'll have a games monster.

With Amiga International making a commitment to bring future Amiga computers a degree of industry standard hardware computability, we can expect future Amigas to sport PCI slots. PCI is the PC equivalent of Zorro, and PCI cards are a lot cheaper than Zorro. For the cost of a cheap Amiga graphics card you could buy yourself your very own top of the line Matrox Millennium with 4Mb of video RAM, capable of resolutions of 1600 by 1200 pixels at 80hz plus, and an Orchid Righteous 3D card which can render around a million texture mapped polygons per second. Combine display cards like this, the huge raw power of PowerPC, the efficiency of Amigas and the ingenuity of Amiga coders and there will be nothing to touch the Amiga as a games machine.

Amiga needs you!

There is of course one major proviso. No amount of hardware is going to give you a top games machine if no-one is writing games for it. We are at last seeing a light at the end of the tunnel with some form of development in this direction. Sadeness software's move into the games market looks like a promising starting point with the rather excellent looking Foundation. ClickBOOM's license for MYST puts the Amiga back on the adventure gaming map, and independent developers around the world are working on games which require higher specification machines to run on. Look at the extended previews section this month or the preview special in the June issue and you'll see for yourself. However, if we want the Amiga to be up there with the best, it will have to run the best software. It will take a lot to persuade the big game companies to return to the Amiga, but with the advent of PowerPC cards and the marketing muscle of Gateway 2000 this no longer looks like an impossible dream – but if it comes about it is going to have to be lead by the gaming public, and that means you.

The simple truth is that Amiga games do not sell, and the big games companies are convinced that this will never change. They can be proved wrong, but it's up to you. For a start, go to your local games shop and buy a game. WormsDC is the greatest game ever on the Amiga, yet it has sold in pitifully small numbers. If you haven't bought it yet, why not rush out and buy it now? If your local games store doesn't stock Amiga products don't just walk out, tell them that you want to buy Amiga games. If you don't say something they won't know there is any demand. Write or phone games companies who have dropped the Amiga and ask them why – be reasonable about this, you can't expect ID software to write Quake 2 for the Amiga because until there is a significant PowerPC user base there are no Amiga users who could run it. Don't forget return the ClickBOOM wish list form we put in last issue either. ■

Andrew Korn

What do you need?

You will hear a lot of wild stories and misinformed opinion as to what the Amiga is capable of. The actual hardware requirements of games varies hugely, as does the suitability of different games to the Amiga's hardware. We've taken a look at some of the more popular titles on the ClickBOOM web site and come up with a guide to the kind of Amiga you would need to run them. We haven't mentioned CD-ROM drives because they all need one.



The Curse of Monkey Island: Lots of cartoon animation. A graphics card would make it run nicer, but would run under AGA. 8Mb '030 should cope but '040 would be preferable.



Command and Conquer / Red Alert: Top down scrolling is just the sort of thing the Amiga does well. Predecessor Dune 2 ran on an A500. This one has more colour and detail. '030 and 6Mb RAM.



Wipeout: Very fast and detailed, this proved too much for the Sega Saturn. PowerPC would be needed for good speed. Could run lower detail on AGA or higher detail on a graphics card.



Tekken 2: Very demanding 3D action. PowerPC essential. Fast PPC could make up for lack of 3D hardware, but AGA would be jerky – graphics card would be pretty much indispensable.



Tomb Raider: 3D graphics chip such as the S3 Virge on a Cybervision 64 would make this just about feasible on '060 and 6Mb, but PowerPC is yet again the best answer to speed problems.



Quake: Will run on '060 and graphics card if you don't mind making a cup of coffee between frames. Give up and try PowerPC. 16Mb Ram. This game could sell a lot of PowerUP cards.



PowerPC Is Coming!

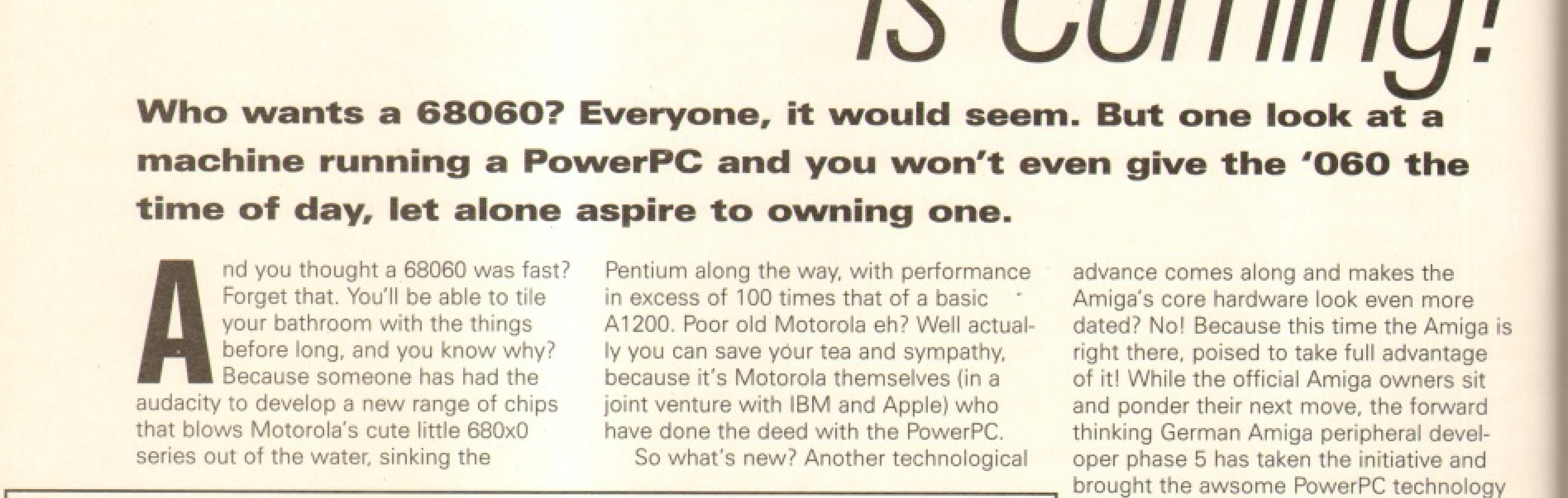
Who wants a 68060? Everyone, it would seem. But one look at a machine running a PowerPC and you won't even give the '060 the time of day, let alone aspire to owning one.

And you thought a 68060 was fast? Forget that. You'll be able to tile your bathroom with the things before long, and you know why? Because someone has had the audacity to develop a new range of chips that blows Motorola's cute little 680x0 series out of the water, sinking the Pentium along the way, with performance in excess of 100 times that of a basic A1200. Poor old Motorola eh? Well actually you can save your tea and sympathy, because it's Motorola themselves (in a joint venture with IBM and Apple) who have done the deed with the PowerPC.

So what's new? Another technological advance comes along and makes the Amiga's core hardware look even more dated? No! Because this time the Amiga is right there, poised to take full advantage of it! While the official Amiga owners sit and ponder their next move, the forward thinking German Amiga peripheral developer phase 5 has taken the initiative and brought the awsome PowerPC technology to the Amiga. By the time you read this, insanely fast 'PowerUp' PowerPC accellerators should already be available to buy for

Breaking the speed limit

There's not enough room on these two pages to acurately show just how much faster the PowerPC is than the 68060 and Pentium chips. Turn the page for more!



the A3000 and A4000, while the first A1200 cards are due in August this year. A1500 and A2000 users will get theirs by the autumn.

This is monumentally good news for the Amiga, and that's no exaggeration. Right now, the most common Amiga CPU is the 68030 clocked at either 25 or 50MHz. Compared to a 7MHz 68020, this is a substantial improvement but as we are all constantly reminded, it's not a patch on the raw power of a Pentium. However, stuff a PowerPC under the bonnet and your Amiga will once again be able to wear its Cutting Edge Technology badge with pride.

Too fast for words

It's hard to imagine the scale of performance leap a PowerPC processor offers over the 680x0 series. We'd normally print a little graph showing speed comparisons between various acellerators or CPUs, but in this case we've had to do something a bit different. You'll notice at the bottom right there are comparitive benchmark speed ratings of a few 680x0 processors, a couple of Pentiums and a couple of PowerPC chips. As you'd expect, the Pentium 90 outstrips even the 68060 by a fair chalk, with its big brother the P200 stretching right over to this page.

So what of the PowerPC? Look, they go right over to the edge of the page – but that's not all. Turn the page and you'll see the 603e wraps around to a third page, while the 604 makes it to the end of this feature! Are you getting the picture yet?

That's right, we're talking serious speed here – the kind of speed that laughs in the face of 3D rendering, plucks the nasal hair of realtime digital signal processing, and steals the dinner money of ultra-realistic flight simulations. All those things you thought your Amiga would never be able to do are now within reach. Finally you'll be able to experiment properly with your favourite 3D rendering software, throwing all kinds of lighting effects and other goodies into the equation without having to wait hours to find you've got the camera pointing in the wrong direction. Full ray-traced 'quick renders' can now be banged out in a matter of seconds, entire full screen animations in hours.

Audio visual apps

With a PowerPC at the heart of your Amiga, a basic duplex sound card and some good software is all that's needed to perform realtime multi-track hard disk audio recording with on the fly digital effects and MIDI sequencing. There are all kinds of uses the PowerPC can be put to, but most impressive by far are those that involve throwing graphics around the screen at high rates.

Visitors to the CU Amiga stand at the recent World of Amiga show witnessed what at first looked like a Workbench running a few animations, but further examination revealed this to be a modest example of what can be done when Workbench gets a kick up the backside from a PowerPC chip. The animation running in the backround was actually a full screen MPEG full motion video sequence being

PowerPC options from phase 5

Currently phase 5 are the sole producers of PowerPC accelerators for the Amiga. Others are bound to follow their lead once they take off, but for now these are the PowerPC upgrade options currently available (prices exlude 680x0 CPUs). For further information about phase 5's PowerUp range, point a web browser at www.phase5.de or call their Frankfurt office on (00) 49 6171 583 787.

Blizzard 603e Power Board

Compatible with	A1200
Clock speed	175mHz
Companion CPU	50mHz 68030
Est. Performance	250 MIPs (approx)
SpecFP95 rating	3.1 (approx)
RAM	64Mb maximum
SIMMS	1 socket
SCSI	Fast SCSI II
Available	August 97
Price	£299 + 68030 CPU

Blizzard 603+ Power Board

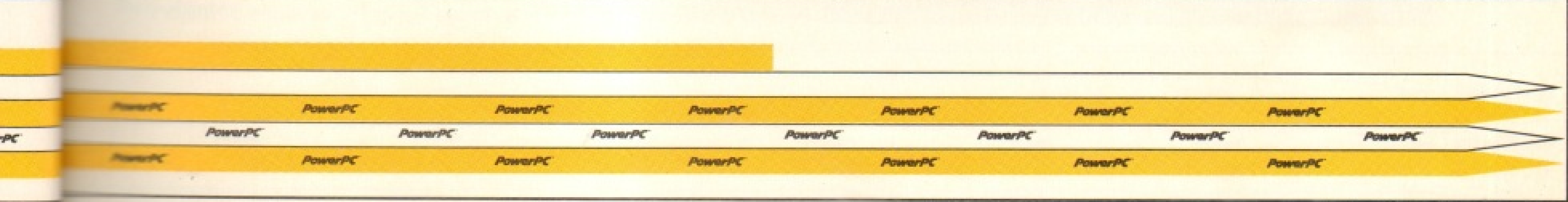
Compatible with	A1200
Clock speed	200mHz
Companion CPU	25-50mHz 68040/68060
Est. Performance	280 MIPs (approx)
SpecFP95 rating	3.5 (approx)
RAM	64Mb maximum
SIMMS	1 socket
SCSI	Fast SCSI II
Available	September 97
Price	£399 + 68030 CPU

Blizzard 2604 Power Board

Compatible with	A1500/A2000
Clock speed	150-200mHz
Companion CPU	25-50mHz 68040/68060
Est. Performance	350 MIPs (approx)
SpecFP95 rating	7.1 (approx)
RAM	128Mb maximum
SIMMS	4 sockets
SCSI	Ultra wide
Available	October 97
Price	£499 (150mHz) £589 (180mHz) £689 (200mHz)+68040/060 CPU

Cyberstorm PPC

Compatible with	A3000/A4000(T)
Clock speed	150-200mHz
Companion CPU	25-50mHz 68040/68060
Est. Performance	350 MIPs (approx)
SpecFP95 rating	7.1 (approx)
RAM	128Mb maximum
SIMMS	4 sockets
SCSI	Ultra wide
Available	July 97
Price	£499 (150mHz) £579 (180mHz) £669 (200mHz)+68040/060 CPU



PowerPC software

The following is a list of Amiga software that's currently being ported to native PowerPC code for phenomenal performance increases. You'll notice that many of these are graphics packages of some kind, as it's these applications which will benefit most from the extra processing muscle of a PowerPC chip. You can check on later additions to this list by pointing a web browser at http://www.powerup.base.org

Product	Description	Developer
Reflections 4.0	3D rendering	Oberland (German only)
Cinema 4D	3D rendering	Maxon Computer
Isis	MPEG video player	Phase 5
CyberGraphX 3	Graphics RTG	Phase 5
CyberGL	3D OPenGL graphics API	Phase 5
Personal Paint 7	Paint/animation	Cloanto
ImageFX	Image processing	Nova Design
Alladin4D	3D rendering	Nova Design
Monument 3D	Video titler	ProDAD
Adorage	Animation effects	ProDAD
p-OS	Operating system	ProDAD
MPEGA	MPEG (L3) audio player	Stephane Tavenard
Art Effect	Paint/processing package	Haage and Partner
StormPowerASM	PowerPC assembler	Haage and Partner
Tornado3D	3D rendering	Haage and Partner
MYST	Adventure game	ClickBOOM!
Imagine 6.0	3D rendering	Impulse

decoded and displayed in real time, while fractals were blasted out in seconds in another window. Dig out an MPEG animation and an MPEG player from a recent CU Amiga cover CD and check how fast it works on your machine. You'll be lucky to get a frame a second, which is not surprising considering that each frame has to be decoded from the heavily compressed format that was developed from the JPG standard. The PowerPC demo of that was running at least 50 times faster.

How it works

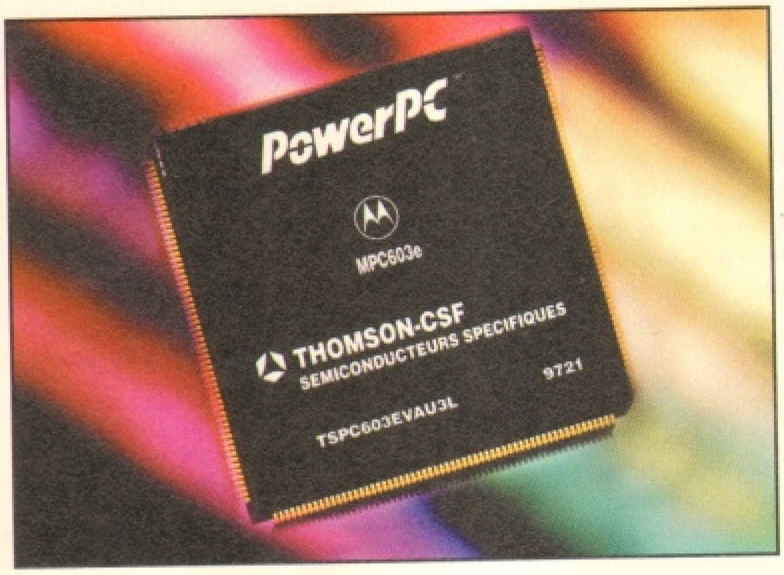
Unfortunately you can't just replace the 680x0 with a PowerPC chip and expect the Amiga to deal with it. To get around this, phase 5's PowerUp cards have both a 680x0 CPU and a PowerPC chip onboard. When the Amiga is booted, the 680x0 is used as normal. Some PowerUp controller software is also started on boot-up. Everything continues as usual until you run some native PowerPC software. This would have some initial 680x0 code at the 'header' that would tell the Amiga to hand over control to the PowerPC. From here on, the 680x0 would take a break and do nothing at all until control is handed back to it from the PowerPC.

Meanwhile, the PowerPC gets to work running its software, free to access and manipulate the Amiga's memory as it sees fit – the essence of executing program code. The speed of the PowerPC chip means that it can fetch, carry, and alter the contents of the Amiga's memory at a far quicker rate than could be achieved by even a 68060, with the end result that PowerPC programs work much faster.

Where's the catch?

You might have spotted a little problem in that sequence. It's the bit where the 680x0 twiddles its thumbs while the PowerPC works only on native PowerPC code. This means that, the way things stand at the moment, you can only run 680x0 software or PowerPC software, not both at once. That in turn means that your 680x0 Workbench would freeze up whenever you started some PowerPC software. So much for the Amiga's famous multi-tasking Operating System. In theory it would sound like a good idea to rapidly switch control between the 680x0 and PowerPC to run both virtually in parallel, but the delays involved in the switch are too great and would be counter productive. The solution is a PowerPC version of the Amiga's OS. Once that's available, you'll be able to boot your Amiga directly into a Kickstart and Workbench that run exclusively on the PowerPC.

Once you've got the native PowerPC OS, you can start integrating the old and the new. Existing 680x0 software can then be handled by the PowerPC CPU running 680x0 emulation and native software in harmony. Amiga International has stated that developing a PowerPC version of AmigaOS is one of its main priorities, so with any luck that won't be too far away.



There have been some concerns over the long erm availablity of PPC chips but as Motorola, IBM and now, Thompson make them , this doesn't seem too worrying!

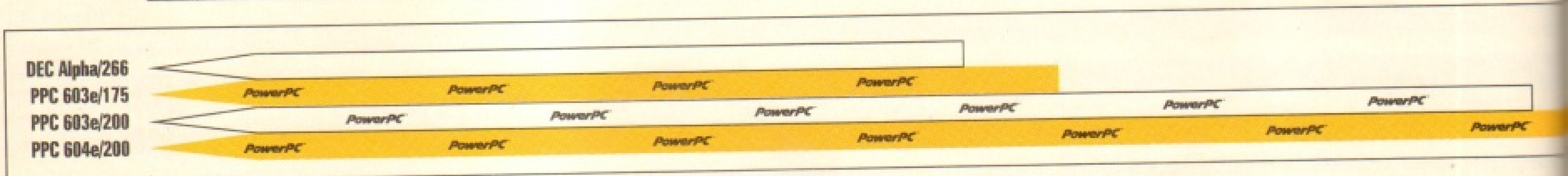
Serious about fun

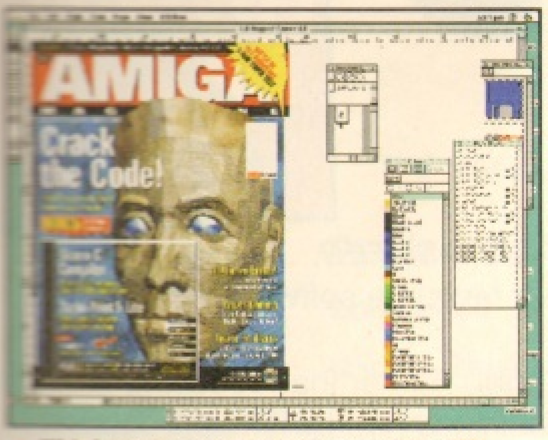
Technicalities aside, what are these PowerUp cards going to do for us? The potential for games is very exciting. The first question of course, is whether you'll be able to play the likes of the current 3D romps causing a stir on the PC and consoles. The answer is yes, but to match the performance of a decent PC or a PlayStation, a graphics card would still be required. Why? Because although the PowerPC could calculate and render the frames to memory easily enough, there's still not enough bandwidth from the slow AGA or ECS chip set to actually shovel the prepared graphics data into 'screen memory'. However, there's an easy solution in the form of a graphics card, such as the Picasso IV or phase 5's own Cybervision 3D. In fact, phase 5 are even planning to release a Cybervision card that plugs into the Cyberstorm PPC.

The bigger picture reveals that an Amiga with a PowerPC in it would be a prime recipient for conversions from existing PowerMac games. We predict that unofficial ports of PowerMac games will soon start appearing on the Net, although the recent failure of AmiQuake to get a full release may deter many potential DIY coders from taking the initiative. Even so, thanks to Apple embracing the PowerPC a couple of years ago, there's a valuable software base ripe for conversion already. Whether we see a large scale move over to native Amiga PowerPC software publishing by the big names in the entertainment field remains to be seen. This will depend on how well phase 5 (and any other Amiga PowerPC hardware manufacturers) can penetrate the Amiga scene.

World of software

Similar factors will determine whether we see Amiga PowerPC versions of major





▲ With Apple Macintosh already using PowerPC, there's a potential ready-made software base.

applications. The PowerMac is furnished with some brilliant software, such as Quark XPress, Photoshop and a host of powerful audio-visual packages. As with the games porting issue, it's possible that enterprising individuals will take it upon themselves to do the necessary work, but this will be seen as nothing more than piracy without proper licencing from the original developers

Don't worry if that particular avenue turns into a dead-end, because all of the Amiga's major software developers are already working on PowerPC ports of their new and forthcoming applications. Take a look at the panel on left for a list of those already confirmed and beavering away. You can expect more to come in the near future too.

Don't expect full native PowerPC applications right away. The first updates which authors are making available are plug-ins to existing packages for CPU intensive tasks. In any given CPU hungry program, only a few routines will be using a lot of microprocessing power. If those routines, such as a rendering module for a ray tracer, are moved to the PowerPC, virtually the full benefit of a total PowerPC port can be obtained. Until the software tools and parts of the Operating System are ported, this is likely to be the way it is initially used though it doesn't make a lot of difference to us.

The latest exciting developments include Motorola releasing an incredible 300MHz 603e which can be used on a PowerUp card! Jim Drew, the author of the Emplant and PCx emulators, has a development card and is working on creating a version of Fusion for the PowerPC that emulates PowerMacs. Impulse is back on track with Imagine and promises a new PowerPC native version with unfeasibly fast rendering times, while the Canadian game developer ClickBOOM are polling the public for which big time PC games they would like porting to the PowerPC. Things are looking good for the Amiga. Very good indeed! ■

Tony Horgan

Program and Win a phase 5 PowerUp!

CU Amiga Magazine in conjunction with Phase 5 digital products are proud to announce the Coding Competition. Non commercial Amiga programmers are invited to send in their own work either productivity application or games and the top 5 winning entries will each receive a Phase 5 PowerUp accelerator!

"This is a fantastic opportunity to bring some top quality amateur Amiga programmers and their software to the PowerPC platform.", says Wolf Deitrich, Managing Director of Phase 5 digital products. He goes on to say, "These programmers were the life blood of the Amiga before and they will be even more important to the PowerUp initiative. We're sure to see some great entries!"

Depending on the model of Amiga they own, the winners may choose from an A3000/4000 Cyberstorm PPC or a A1200 Blizzard 603e. The catch is that the author must port the winning application to the PowerPC within a year or return the accelerator. They are free to alter the status of the ported software to shareware or commercial as they see fit. Sounds good to us!

The competition deadline is the 1st of October. The winner will be announced in the December issue and all entries will appear on the corresponding CD-ROM. That's it, get cracking and may the best coders win!

The specifications for the PowerPC accelerators are as follows; Cyberstorm PPC: A blistering 150Mhz PowerPC 604e, 4 SIMM sockets holding up to 128MB of RAM, integrated 68040/68060 (not supplied) and Ultra-wide SCSI-II.

Blizzard 603: Blinding 175Mhz PowerPC 603e, integrated Fast SCSI-II and a socket for a 68030 (not supplied) with a SIMM socket to hold up to 64MB.

How to send in your entry:

Category of application: ....

My name: ....

Address and postcode: ....

....

....

My phone number/e-mail: ....

❑ **I hereby acknowledge that the material enclosed is of my own creation and/or I own the copyright to the material and grant CU Amiga Magazine the rights to enter this in the Coding Competition and to publish this material on a forthcoming cover CD-ROM.**

Send your form to: Coding Competition, CU Amiga Magazine, 37-39 Millharbour, Isle of Dogs, London, E14 9TZ, United Kingdom. Alternatively, you may enter the above information in text form and upload it and the material to our FTP site. Please clearly say in the readme that it is a Coding Compo entry.
Example: myapplication.readme myapplication.lha
Internet FTP: ftp.cu-amiga.co.uk/submissions (login: cucd password: reader)
Or E-mail (MIME only): coding-compo@cu-amiga.co.uk

Screen Scene



Andrew Korn continues to cast a critical eye over the rebirth of Amiga gaming with a look at some of the wonders which await, and a look at a couple of the latest offerings.



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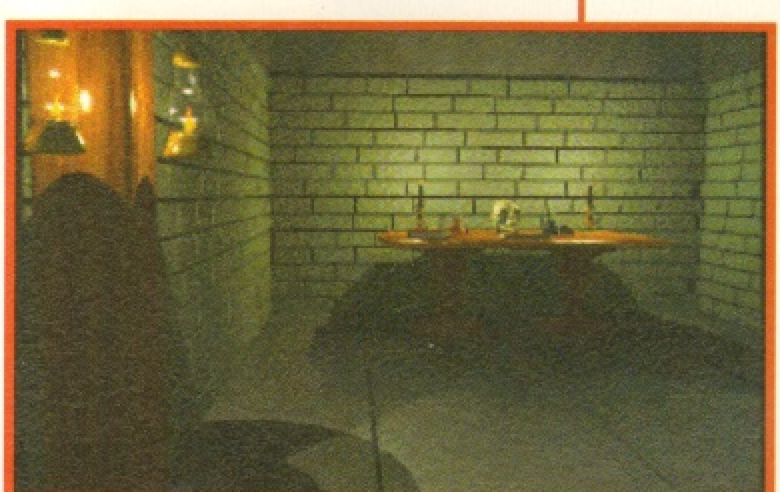


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Foundation

■ **Due for release: November** ■ **Developer: Paul Burkey**

■ **Distributor: Sadeness Software ✆ 01263 722169**

Sadeness, responsible for so many Amiga CD-ROMs, are moving into the games market, and they're bringing Paul Burkey with them.

Sometimes being an Amiga owner just isn't easy. How many times over the past few years have we had the carrot of a gem of a game dangled under our collective noses, only then to have it whipped away for no apparent reason? Settlers 2. Command And Conquer. Warcraft. The list is depressingly long. Isn't it about time someone showed the world that not only is the Amiga equal to all other gaming formats for this kind of sprite based strategy wargames, but in some cases it's actually better? That's exactly what the charming and enthusiastic Paul Burkey has set out to do, and at the moment it looks like he's doing quite a good job of it.



You may have seen Paul's work before, most notably his shareware release Sneech, but he is viewing Foundation as his first real project, which began life last summer, after Paul had dabbled with a Settlers 2 clone. It was destined to be nothing more than an experiment – just a test to see if he had the right stuff. Two months holiday in South America and a couple of weeks playing Warcraft and Command And Conquer on a friend's PC, and Paul had all the inspiration he needed to create what could well be the ultimate in god games.



Make 'em fight

Except it isn't really a god game. True, it does have a lot in common with titles such as Populous, Megalomania and Settlers. You control real working people, who till the land and, erm, cash register the seas to create resources for your manipulation. But the key part of this game, and the thing that sets it more in the league of Warcraft, is the combat. If you've never sat down with Command And Conquer, then you won't know how incredibly gripping it is to issue intelligent orders to individual units, as with The Settlers, and then be able to jump in and control a character directly; leading your own offensive if you will.



Foundation: grab your guys and get them building.



From the screenshots, and the early demo version currently doing the rounds, Paul looks like he has taken the best parts of all these games, and blended them together in a way that's going to appeal to a lot of people. As the man says, what he wants to do is to increase his potential market by selling to the kind of people who wouldn't normally ever think of buying this sort of game. That would take in the Worms audience, the arcade players and even the more serious strategists. That's where the ability to step in and take direct control over units comes in. That, plus a plethora of tutorial levels, hints boxes and other gadgets designed to make the game as easy to get into as possible.



Link 'em up

Which is something you will really want to do, especially when you consider that as well as a serial link between machines to make the game a little more exciting, Paul is also in the process of writing a four player TCP server, to allow multiplay over the Net! He may even be able to expand it to include eight simultaneous players, but this will only be included if time constraints allow.

The game has only really been in serious development since November of last year, and is currently 72% complete (don't ask me how they can be so accurate!), and Paul is looking to complete the game around November of this year. Quite a feat when you consider that he's working alone with an Amiga 1200 with only 4Mb of Fast RAM.

Arguably the game, once released in full, could stand as a tribute to that most weird and wonderful of the species. Yes, that bastion of creativity, the bedroom programmer, is back. Long live the bedroom programmer!

Foundation should be ready for release around November 97. If you should want to find out how it's progressing, just check out Sadeness' web site found at http://www.sadeness.demon.co.uk for more information, and keep watching this space for the full review in a couple of months. ■

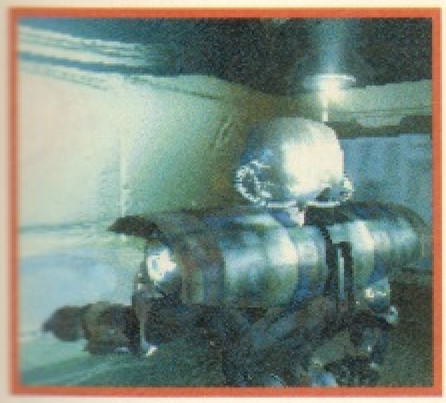
Tony Dillon

Golem

- **Due for release: Autumn**
- **Developer: Underground Software**
- **E-mail: ungrosft@mbox.vol.it**


Golem: Great graphics – and high hopes for the game.

This looks like it's going to be just that little bit special. Underground Software are a bunch of highly talented Italian coders, who have worked long and hard to create a new file format – the XFL96 – that has allowed them to create what they dubiously claim will be the first ever interactive movie for the Amiga. This incredible new spooling engine runs faster and smoother than MPEG (not difficult), and will apparently run quite happily on a non-expanded and generally non-enhanced A1200! By creating a system that can jump to any frame of the video instantly, without any loss of image quality, they may well have solved the age old problem of 'how to make a video interactive'. Mind you, you will need a 6x speed CD-ROM drive to be able to run it, but given the cost of them nowadays, who really cares?



The game itself (oh yes, let us not forget the game), tells the tale of the Golem project, in the year 4096. The Earth is being enslaved by the Biotech droids, and only a certain Professor Meglon can help save the world by unleashing his own robot killing machine – namely, you. So, from that point, you control your main character through some gloriously rendered sequences that promise to be a little more interactive than that prehistoric attempt, Dragon's Lair.



All the rendered animations are looking pretty spectacular at the moment, and unfortunately these screenshots only do partial justice to the look of the game. We'll have a more in-depth look at this movie-size production in a future issue. ■

Tony Dillon

Olofight

- **Release: Early autumn**
- **Developers: The Real Ologram**
- **E-mail: ologram@agarde.it**

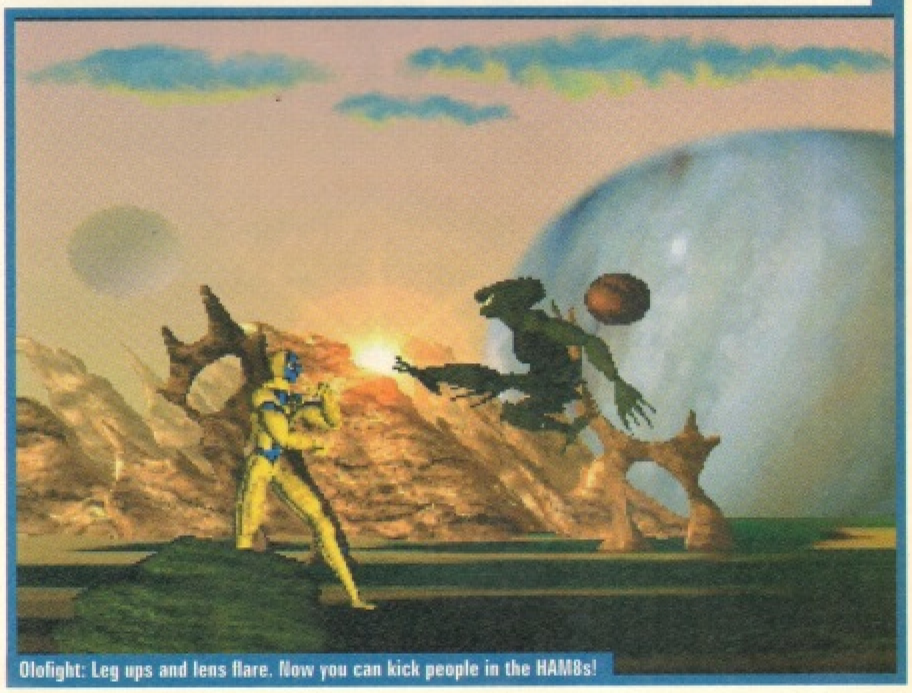




Ever since the original Streetfighter hit the arcades all those years ago, development teams worldwide have been after the ultimate fighting game, and admittedly there have been some good ones. Unfortunately, the world got so wrapped up in Streetfighter 2, that everyone seemed to forget originality for a moment and spent all their time making their games look as Japanese as possible. The Real Ologram (which I'm sure should have an 'H' at the start of it!), have left all that behind and made as original a beat-'em-up as they can, concentrating on all the things the Amiga is good at. Just have a look at the role call of statistics... There are over 1500 frames of animation just for the ten fighters in the game, who are standing on a 3D parallax floor with objects they can move in front of and behind freely. There are ten special moves for each of the fighters, along with all their usual moves. The game runs in 25 frames per second in HAM8 mode, with over 3000 colours on screen at once. The main character graphics are rendered and cast realistic shadows. I could go on, but there just isn't the space.

A playable demo will be available soon, and the finished game will follow shortly after, so dust down your shuriken and start buffing your nunchaku now! ■

Tony Dillon


Olofight: Leg ups and lens flare. Now you can kick people in the HAM8s!

Trapped 2


Trapped 2: Quake and Duke Nukem beater?

■ **Due for release: Mid summer**
■ **Developer: Oxyron**
■ **Distributor: Islona ✆ 0500 131 486**

The PC hardware market is expanding at a frightening rate. Faster and faster processors and graphic cards are being snatched up in their hundreds of thousands. Machines are being upgraded more times than Keanu Reaves booking Club Class, and the minimum specifications for even entry level machines are currently going through the roof.

Due to the time needed to create games, software houses now work on the highest specification PCs and are already aiming next year's batch of new product at a minimum 200Mhz Pentium specification. We have to ask why. The answer, my friends, is a simple one. The world has realised that processing power makes for fantastic gaming entertainment, and Trapped 2 looks like it could well be the result of that same, high spec rationale.

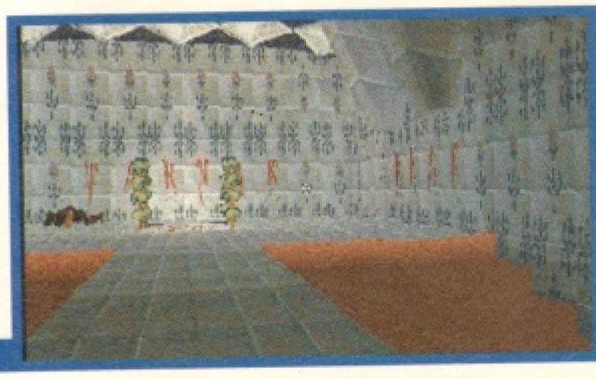
Forget Doom. That clunky old pile of tosh, with its two dimensional bad guys and poor lighting is about as convincing as 3D Monster Maze on the ZX81. What we need is a mix of Quake, Descent and Duke Nukem 3D. I want real lighting effects, with lens flare, reflective surfaces and realistic shadows. I want animated textures, with realistic water in realistic rivers, and mirrors I can walk up to and grin at myself before blowing someone halfway to next Wednesday. I crave real 3D bad guys, ones that can turn and be viewed from all angles, and 3D weapons with real substance, so I can feel the blade going all the way through to the spine, catching between vertebrae, so that I need to place my boot against my opponent's chest if I am to stand any chance of getting it out again... Phew, er can I have a lie down now?

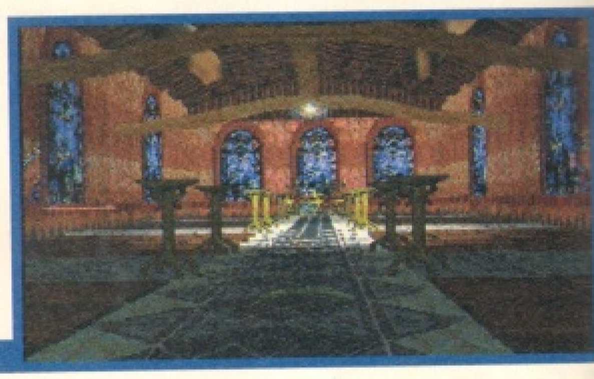
So here we have Trapped 2, a first person adventure game that looks like it's going to take all the best parts from Quake and Duke Nukem, and add some high tech, home grown Amiga ingenuity. The seven level demo we have is just a taster of what's to come, and even as early as it is at the moment, we have to say that we are most impressed. Atmospheric lighting and sound effects, an impressive frame rate (if you have a fast enough machine, naturally) and, probably most importantly, a healthy dose of originality.

We'll have the full thing for your perusal next month. ■

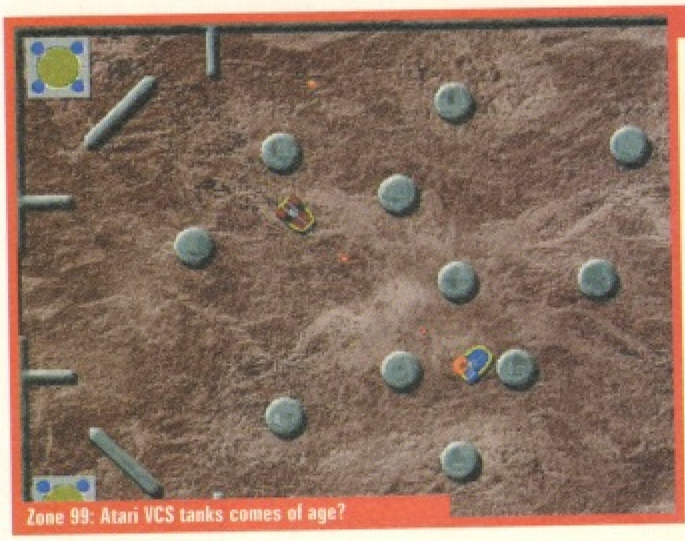
Tony Dillon







Zone 99


Zone 99: Atari VCS tanks comes of age?



■ **Release: Mid summer**
■ **Developers: Aurora Works**
■ **E-mail: info@auroraworks.com**

Don't you just love game titles that tell you everything you need to know? Total Carnage, Formula One Grand Prix – there can be no mistaking what these games are about. Enter Zone 99, a new multi-player puzzler come shoot 'em up from Aurora Works, a game with 99 levels, or Zones. The premise of the game is quite simple: solve the puzzles that are thrown at you each level, either with or against a friend, and try to find your way through the enormous maze of zones to get to the last level. What could be easier than that?

The game approach is equally simple. A straightforward top-down view and full usage of expanded graphics cards and other system improvements means the emphasis is purely on speed, with the game clocking up to 48 frames per second at peak points – you are guaranteed a frantic bit of blasting here! To add to the atmosphere, no less than six different musicians have been brought in to provide the soundtrack and effects for the game – surely the largest audio team on any Amiga title yet! Look out for a full review next issue. ■

Tony Dillon

Vendetta 2175

■ Price: £19.99 ■ Publisher: Islona ✆ 0500 131 486 ■ Developer: Vortex Design

Take a classic arcade game format. Add AGA graphics. Render all the bad guys and throw in a 3D tunnel sequence between levels and what do you have? Unfortunately nothing as good as Super Stardust....



Some people in this world still have a lot of faith in the Amiga's abilities and owners generally upgrade their machines in order to take advantage of the latest technology. It therefore follows that there is no real reason why many classic Amiga games can't be updated to take into account how far the machine has improved in recent years.

Unfortunately, Vendetta is a classic example of how to take a classic, familiar game style and add absolutely nothing to it bar a couple of demo tricks that have been around for years.

First of all, though, let me tell you about the game. In essence it's a horizontally scrolling shoot 'em up that has you, and a friend should you want to subject them to this, flying lone fighters against attacking waves of enemy 'things', shooting everything out of the sky and collecting little golden disks to improve your ships' capabilities. Along the way the action occasionally slows down to allow you to take on a really nasty enemy, such as a spinning cluster of boulders that fire at you. Then it's foot back on the gas to zip off and face more Tie-Fighters, Battlestar Galacticas and nasty looking spheres.



▲ Glorious tunnels, oh-so smooth scrolling, but lacking in excitement.

Graphics

Original is not a word that applies to this game. I don't know what the graphic artists were thinking of when they were defining the levels, but inspiration obviously was coming from no further away than their video collection. I know it can't be easy to sit and design dozens of alien craft and meteors to come hurtling from the right of the screen towards you, but surely there are laws against this kind of plagiarism?

So, it's a very simple premise. There have been so many fantastic shoot-em-ups on the Amiga over the years – after all, scrolling arcade games is something the Amiga was born to do – that there aren't really any mistakes left to be made, are there? It's such a tried and tested formula that everyone knows what makes a good one and what makes a bad one, so everyone knows what to avoid. Or so you would think. Vendetta has stunning graphics, smooth scrolling, very responsive controls, a wide variety of situations to negotiate, a solid two player mode and speed on its side. So just what's gone wrong here?

Structure. That's what's wrong. The game lacks structure.



▲ That's it. Stick to the corners and stay safe...

Motivation

One of my favourite shoot 'em ups of all time was Gremlin's Disposable Hero. I don't know how many weeks I lost stuck in front of a CD32 charging through that one, and the reason it was so addictive was that it had a real feeling of progression. You were on a journey, travelling from one place to another, and there was a real sense of accomplishment about getting there. Something about this game just feels so haphazard that you can't help but conclude that the programmers had some really nice demo routines they wanted to show off to the world, and couldn't really be bothered to complete the game around them.

Lacking

The enemy attack patterns seem almost random in their flight-paths, appearing on one side of the screen and zipping to the other without a thought for you, apart from the occasional bullet that heads off in your general direction.



It's not a bad game, by any stretch, and I'm sure it would keep even the most casual player entertained for a while, but the lack any real excitement leaves this one being just another pretty Amiga game – good for putting on the demo machine in the window, but lacking any real substance that would give it the entertainment, depth and excitement that any shoot em up should ooze. ■

Tony Dillon

VENDETTA 2175

- workbench version.........3.0
- number of disks ....CD-ROM
- RAM 4Mb
- hard disk installable ......no

A1200

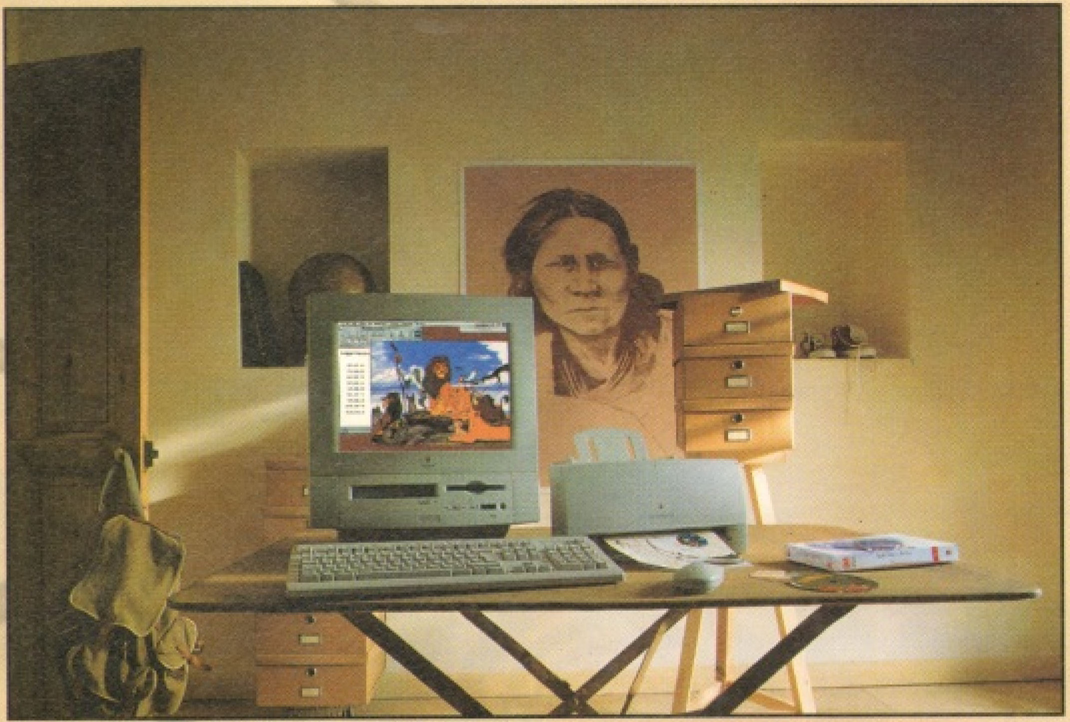
graphics	82%
sound	76%
lastability	56%
playability	72%

A4000

OVERALL **73%**

Smooth, professional, but unengaging.

Why Apple?



One day we all hope to see the rebirth of the Amiga with a PowerPC processor and other new features to enable it to compete again with today's systems. Sadly though, more than 2 years since Commodore's demise, little of substance has actually happened. We've seen prototypes and heard promises... we all hope to see new Amiga developments.

If you can't wait and need more performance today, without paying the earth - there's only one real alternative to consider... There's never been a better time to think Apple!

Only Apple offer you both desktop and portable computers that truly match the ease of use the Amiga brought to your desktop. Affordable Apple Macintosh systems have PowerPC RISC processors with thousands of off-the-shelf programs available in areas where the Amiga was always previously so strong.

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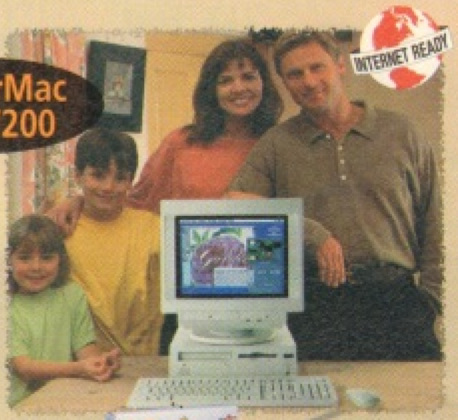
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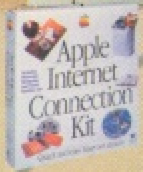
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PM5500 Black Mac	225	603e	32	2.0Gb	✗	✓12	15" Integral	✓	✓	✗	✓33.6	Design	£1820	FAMILY PACK
PM6400	200	603e	16	2.4Gb	✗	✓8	15" AV M/S	✗	✗	✗	✓28.8	Design	£1503	HOME OFFICE
PM6500	250	603e	32	3.0Gb	✗	✓12	15" AV M/S	✗	✗	✗	✓33.6	Design	£1938	HOME OFFICE
PM6500	275	603e	32	4.0Gb	✗	✓12	15" AV M/S	✓	✓	✓	✓33.6	Design	£2525	CREATIVE STUDIO
PM4400	200	603e	16	1.2Gb	✗	✓8	15" M/S	✗	✗	✗	✗	Design	£1291	✗
PM7300	166	604e	16	2.0Gb	✗	✓12	✗	✗	✗	✗	✗	Extended	£1761	✗
PM8600	200	604e	32	2.0Gb	✓	✓12	✗	✗	✗	✗	✗	Extended	£2584	✗
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Trapped



■ **Price: £19.95** ■ **Publisher: Weird Science © 0116 2463800**
■ **Web site: www.weirdscience.co.uk**

There are few companies who haven't written a version of Doom. But as the whole format becomes rather tired, we find that there's still life left in it....

Imitation is the sincerest form of flattery, I've always been told, and plagiarism is the key to success in almost any field. Why else is it that so many companies over the years have tried to emulate the success of Doom by trying to take the idea and put a new spin on it? To be honest, I'm sick to the back teeth with the thing. First person perspective, 3D worlds are all well and good, but once you've been through one stone-walled maze, I think you've been through them all. What the world really needs is a new use for this kind of technology. Something that takes the atmosphere and excitement of 'being there' and actually gives you a purpose. It's something that will certainly engage more than your trigger finger in a quest to unbalance your equilibrium.

Sticky pages

Oxyron think they have just the thing in Trapped – a fantasy role playing game set in a 3D world, in which the player must use cunning and initiative to negotiate their way through thirteen levels of mazes, monsters, traps and puzzles as they attempt to make their escape from the dark lord Tarnak. All of this takes place in the kingdom of Kaldrion, and I think the rest of the plot could be figured out by buying half a dozen pulp fantasy novels and gluing random pages together.

So what about the game? Well, what we end up with is a blend of two different styles of gaming which has resulted in a rather shallow game. To explain what I mean, let's first take a look at the role playing, adventure side of the game. At the start you are offered the choice to be one of five characters, from a knight to a barbarian, taking in fighter, hunter and dwarf along the way. Each is skilled with different weapons, and has varying magical abilities, and that's really as far as the role playing element works.



▲ **A little sword practice can go a long way to helping you stay alive. Fools run in where angels fear...**

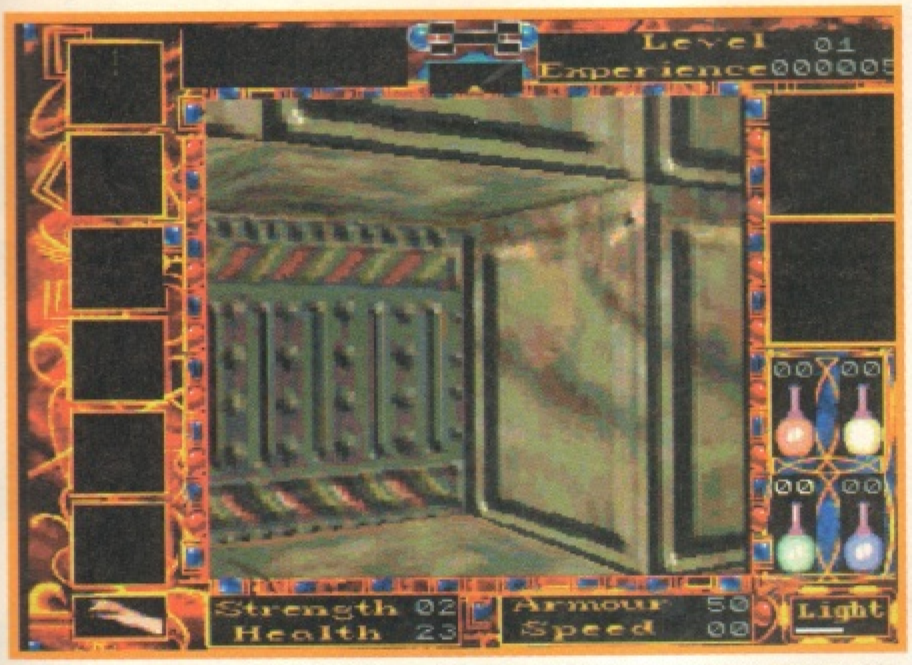
The essence of role playing, as defined by the name itself, is that you adopt a persona, and play the game through the eyes, actions and limitations of that character. I don't want to nit-pick, but not being able to name your own character seems to show a certain lack of thought.

The other side to role playing and adventure games is the actual adventuring. What kind of challenges are you likely to find? What kind of puzzles will you be called upon to solve? Well, in the case of Trapped, nothing particularly challenging. Find the keys to open the locks, and throw switches to open doors that are usually very close by, almost always in visual range. So there aren't any real puzzles, as such.

So what about the Doom side of the game? The engine itself is competent enough, as you would expect given the number of excellent titles that have already appeared. The frame rate is more than adequate, with the main 3D screen taking up about two thirds of the main display, surrounded by useful information such as your health and strength. There are a couple of innovative windows that show maps and suchlike, if you happen to have collected them. The way your



▲ **Low health and no experience. Revisit your wasted youth and hack and slash again, with Trapped.**



▲ In adventure games of this ilk, it is sometimes comforting to be confronted by the odd locked door. It's almost comforting for those of us who are revisiting our gaming past.



▲ Barbarians are still very popular races – even today.

head bobs is quite fun to watch, as the coders have replaced the usual up and down bounce we are all used to seeing, and have added a slight side to side tilt – all we need now is a whistling sound effect, and you have the happiest warrior ever.

It's not my son

All walls, floors and ceilings are textured and light sourced, as you would expect, although I must admit to having a bit of a gripe when it comes to the use of light in this game. Obviously the coders have worked long and hard to create realistic lighting effects, and flickering candles do wonders to brighten up another long stone corridor. What I don't understand is why, after spending so long making the lighting work accurately, is it used so badly? Many of the rooms are dark and bland, while some corridors have so much light in them, it's like walking into the centre of the sun. A little planning and some more subtle lighting, and this game could have looked fantastic. Thankfully this seems to be something they've corrected in time for the sequel (preview on page 36). Glitches in the light sourcing also result in floor tiles lighting up as you walk over them, just like they did in that famous old Billie Jean video by Michael Jackson.



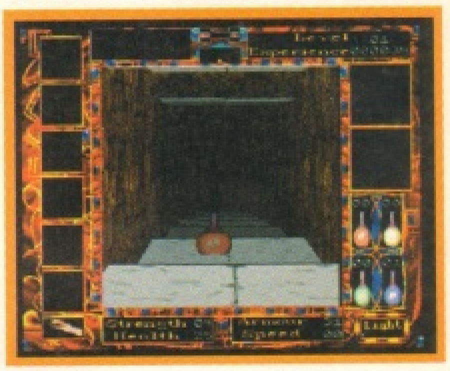
So how does it play I hear you all ask? Because at the end of the day, that's the thing that matters the most, and I'm extremely sorry to say that the playability is the biggest bugbear of all. What should be an involving and exciting adventure ends up being rather bland. There is very little in the way of action, so you do end up spending a lot of time wandering around identical looking corridors, looking for keys and switches, and very occasionally you find something to fight and the combat I'm afraid is just about the very final nail in the coffin. Very badly drawn sprites walk directly towards you and then stand stock still in front of you. Judging by the way your health drops, I can only assume that they are still attacking you, but just out of shot.

Slow hand

The combat control in Trapped is extremely unresponsive. Too many times you'll find yourself backed into a corner waiting until your character is ready to strike again, which can have you waiting for up to a couple of seconds after your last stab or slash. This is, of course, ultimately frustrating. Still, at least the bad guys aren't particularly intelligent. Get one behind the other, and they will wait in an orderly queue to attack you, rather than all rushing you at once.

The concept for Trapped is a good one. Having said that though, you'll find the idea of mixing a first person perspective world with a role playing game was done to excellent effect some years ago in Kevin Bulmer's Legends Of Valour. It's therefore nothing short of shameless that this version hasn't succeeded in





taking any real steps forward. Having said that, the fact that this has been done on the Amiga at all belies the fact that graphical 3D engine is technically very advanced. The game actually scores well here, but with a little bit more structuring of the adventure side of the proceedings Trapped could have easily been a superb game. As it stands, it's technical status is much, much higher than the game's depth.. ■

Tony Dillon

Now that's magic

One of the more interesting features in the game is the use of magic. Where lesser games will allow you to collect health potions, fireball potions and aphrodisiacs to aid you on your quest, Trapped simply gives you the recipes and leaves you to find the ingredients for yourself. Not that any of them are particularly taxing, and simply involve mixing one colour gas with another and then drinking it, but it does allow for some freedom later in the game when you have a plentiful supply of gases to play with. Like so many other things in the game, this could have been used to excellent effect, allowing the player multiple ways to solve puzzlers, but as it is all you have is a selection of health restoring and combat spells. A little more imagination is needed, I feel.



TRAPPED

A500 A500+ A600 A1200 A1500 A2000 A3000 A4000

workbench version	3.0
number of disks	CD-ROM
RAM	2Mb
hard disk required	yes
graphics	84%
sound	78%
lastability	78%
playability	65%

OVERALL

A good concept, but poor execution

79%

Reach for the stars

Steve Brown of Mindscape International was one of the original creators behind the hack 'n' slash Barbarian games...



Name: Steve Patrick Brown
Age: 36
Born: Isleworth
Occupation: Creative Director for Palace, now Lead Designer for Mindscape Interactive
Biggest Success: Barbarian, Barbarian 2 (Palace Software)



Barbarian



CU: ***So how did you initially get into working with computers?***
SB: Having completed an illustration course, I saw a Palace Software ad in the back of Campaign (the weekly media publication). I'd originally intended to go straight into some comic book art, but I'd always wanted to try animation too, so I thought I'd give it a go.

Is there anything I miss? Yeah, I think game production was much more manageable in those days when teams were smaller

CU: ***What was the first game you ever worked on?***
SB: Cauldron for the C64.

CU: ***When did you first become involved with the Amiga?***
SB: Around the end of working on Barbarian on the C64, Palace got some Amigas in for some evaluation and we just took it from there.

CU: ***What were your first impressions of the Amiga and how did working with 512K of memory and the increase to 4096 colours compare to the C64?***
SB: Obviously the machine was a big improvement over the C64. The increased memory at the time was phenomenal, but I was also very much excited by it's potential for graphics, animation and sound.

CU: ***Who else did you work with during Barbarian and Barbarian2?***
SB: I worked with Richard Leinfellner, Stan Schembri and Andy Fitter who handled the programming side, while Gary Carr and Joe Walker handled the graphics side.

CU: ***After those Barbarian years, the Amiga sadly has become a distant memory to you, do you miss anything about those golden days?***
SB: Actually, I still use my trusty old Amiga for my accounts (although any day now I'll be switching over to Exel on the PC – alas, the end of an era!) But I digress... Is there anything I miss? Yeah, I think game production was much more manageable in those days when teams were much smaller rather than today.

CU: ***Palace Software made computer games but were also famous for making films. Whatever happened to them?***
SB: The whole Palace group went into liquidation in 1992, after pouring unfeasibly large amounts of money into a series of unfeasibly crap movies.

CU: ***You've recently joined Mindscape International and you're off to LA for the prestigious E3 show. What is your latest role in the computer industry?***
SB: I take a Creative Director role at Mindscape International, although I still like to keep a 'hands-on-approach', i.e. producing some of the artwork and animation as well as game concept and design.

CU: ***Now that the Amiga has been bought once again, can you see it ever reclaiming its former glory and becoming the affordable home computer that we all owned one time or another?***
SB: Unfortunately, I do not. I think that the PC has far taken too much ground for any other machines to compete.

CU: ***What do you think is the future of computer games and where are we going?***
SB: Now there's a question. My view is that as technology improves, movies and games will become virtually indistinguishable from one another in terms of their scope, quality and the methods of production. Virtual reality, photo-realistic CGI, it's all inevitable. Now if only I could get myself a computer that could handle the animations in my head...■

Mark Forbes

Tips Central

Breathe new life into your games collection with another set of cheats from Mark Forbes. Troubled adventurers should journey across the page to consult Tony Gill.

Valhalla series

Courtesy of Lisa Tunnah, here are the codes for the Valhalla series.

Valhalla - Lord of Infinity

The Crypt:	No code
The Sanctuary:	LOPFGW
The Chapel:	UHGWIL
The Tower:	ABHEFT

Valhalla - Before the War

The Dungeons:	PUMEL
The Gallery:	BOMAL
King's Chamber:	SAMOL

Valhalla - The Fortress of Eve

Village of Eve's Land:	MAHAM
Fortress Courtyard:	TIUIT
Fortress Tower:	TOHOT

Impossible Mission Special Edition

Level 1

SUBSECTION 1:	AAAAAAAA
SUBSECTION 2:	ETQCWXLB
SUBSECTION 3:	EXQBEXYP

Level 2

LEVEL 2 - OFFICE ZONE

SUBSECTION 1:	FBQBRXYH
SUBSECTION 2:	FFQBYXRL
SUBSECTION 3:	FJQHMXPH

Level 3

SUBSECTION 1:	FNQERXAO
SUBSECTION 2:	FRQDRXWH
SUBSECTION 3:	FUQZNXFL

Level 4

SUBSECTION 1:	FZQAXXUA
SUBSECTION 2:	GDQLWXIJ
SUBSECTION 3:	GHQLVXVJ

Level 5

SUBSECTION 1:	GIQCOXRG
SUBSECTION 2:	GLQZGXCJ
SUBSECTION 3:	GQQBJXOF
SUBSECTION 4:	NO CODE

The Empire Strikes Back

Press and hold down the Help key on the title page and type - XIFARGROTCEV or try XIFARG ROTKEV (which spelt backwards is VEKTOR GRAFIX) to get to the cheat mode. Press Return to terminate the cheat.

Press L for a picture of Luke Skywalker
Press C for a picture of C3PO
Press D for a picture of Darth Vader
Press any of the number keys for speech samples.

Return of the Jedi

Enter your name as DARTH VADER on the high score screen and play the game as usual. Pressing F2 will allow you to skip levels!

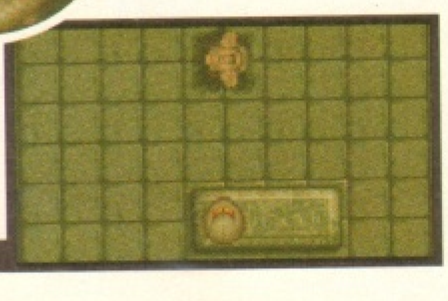


Valhalla

Microprose F1 Grand Prix



To win a race the easy way, go into the pits on the last lap and press the Escape key. Use accelerated time and when you see the finishing places of the race you will see that you've come first!



A-Train

Press Caps Lock and type CHEATERCHEATER-WIMP. After a moment your cash funds will exceed themselves by one million dollars and all your land will be full of building blocks. And the best thing? You can continue to do this endlessly! Also while playing, hold down Shift and Y for loads of money!

Railroad Tycoon

You can increase your bank balance by $500,000 by entering the F1 screen and holding down Shift and 4 together to display a dollar sign. As soon as that has happened you should receive tons of money from your inheritance. Remember though, this only works with the main continent screen.

Kid Chaos

Some level codes...

Level 1:	LFEGOKQCK
Level 2:	MDORQAPKHOL
Level 3:	NRLQTAGASIM
Level 4:	NRLQTAGASIM
Level 5:	OPTSQARBLOD

The following codes give you ten lives and a high score.

Level 1:	CBBDCBABKAK
Level 2:	MHCNBBKBAL
Level 3:	DRFDQBLLKKC
Level 4:	OOCTLBBKKN

Enter the following as passwords:
ARCADEGAMES - gives you a snazzy games menu.
HARDASNAILS - gives you a cheat menu
BMNEPGHITJJ - unknown, but let us know what it does!

Got a good tip?

If you've got a good cheat or tip for your favourite game, why not send it off to us and we can tell the whole world about it. Send your tips to: Tips Central, CU Amiga, 37-39 Millharbour, Isle of Dogs, London, E14 9TZ.

Eye of the Beholder II

I seem to have cleared all of the dungeons and underground passages etc. and I have worked on the levels above ground – I think it's called the Silver Tower – and finally I have got the Darkmoon sign etched onto my hand. My problem is that I have got into the room which is blocked by a voice which is looking for the 'Mark!' Also at this point is a shield that won't let me pass. How do I get through the shield and beyond?

A.E. Berryman, Cramlington.

You finally got the Darkmoon mark on your hand, and yet you want to know what the 'Mark' is that the voice speaks of. I think you've been drinking the dirty water in the dungeons again, and it's affecting your brain. You've obviously got the mark or else you wouldn't have got past the magic mouth to find the azure shield you silly sod! And as for the shield, you'll note that it is made from a pretty green stone, so why not find a tough hammer and smash it? You'll find a crystal hammer which is just the right size on level three of the Silver Tower.

Bard's Tale II - The Destiny Knight

Please help me to end months of torment! I am on the verge of acquiring the last segment of the Destiny Wand, but cannot find the passwords to gain entry to the dungeons under Colosse. Also I can't get the Dreamspell to work. I would be grateful for some help.

Dave Simmons, South Shields.

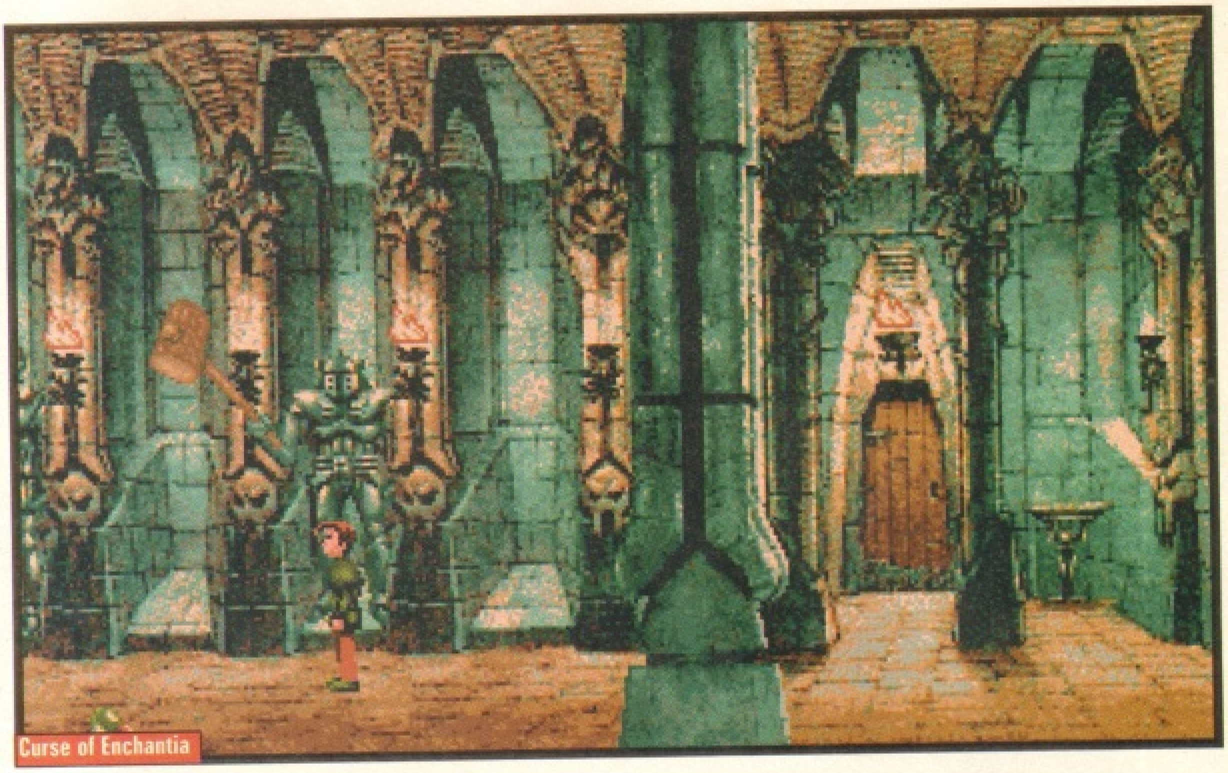
The passwords you seek are: FREEZE and PLEASE, so you can see that your old mum was right when she said that it never hurts to say please and thank you. As for the powerful dreamspell, you must call the magic word ZZGO. The dreamspell has the power to teleport a party to the entrance of any dungeon, castle, fortress or crypt. It can also be used the heal your party's wounds during combat, make it impossible for the enemy to land a blow on one of your men, and also conjure up the Mangar's Mallet spell. This dreamspell is obviously pretty useful, so take care of it, as you don't get many of these for a pound.

Amberstar

I have been playing Amberstar for two months and I am stuck. Could you please tell me the following: the name of the pirate which will get me into the Chancellor's Cellar in Crytal, and an answer to the Riddle Master's Riddles.

Susan Long, Newcastle.

Yes, well, the first problem with this game is that it was written in Germany. Because of this, Amberstar is full of little extra challenges, mainly to do with the English language. I believe they first wrote the game in German then picked up some drunk off a cross channel ferry and paid them a fiver to do a translation. The pirate's name is relatively easy, for it is Maltor. The answer to the first riddle is also easy for it is 'Ear'. The remaining riddles are baffling, even when you know the answer. To the question "It flew featherless, into a tree leafless. Who ate it?" The answer is 'Sun'. To the question "A woman came mouthless and ate the bird featherless. Who was flying?" The answer is 'Snow'. Now I'm sure it's all become clear to you, now that it's been explained!


Curse of Enchantia

Space Quest 4

I've been stuck in SQ4 for months! I need the code for Ulence Flats. I have the three codes from the hint book, but I can't get the rest.

R.B. Stone, Bristol.

Well the place you should be looking is back in the arcade at Galaxy Galleria.

Drift around and wait for the police to come after you. When they do, go down quickly and go back into the arcades. Read the hint book to get the first three digits of a code and open the paper (from the nest) to get the second half. Enter the time hopper and type in the code.

Quest for Glory – Hero's Quest

I recently bought the game, Quest For Glory – Part 1. However, after playing for weeks and weeks, I have had terrible trouble actually getting in to see the baron. When I ask the guards about letting me enter the castle to see the baron, all they say is, "To enter the castle you have to have the baron's permission".

This is so annoying! I am a fighter in this version of the game. Could you please help me solve this problem?

Joanna Hicks, London.

The baron is a worried man, and he isn't going to waste his time talking to the likes of you, unless you make it obvious that you are very interested in his welfare. If you were to ask the guards all about the baron and his problems they might realise that you could help solve some of the baron's troubles. Ask about the baron, his son, his daughter, about Yorick, about Babayaga, and about brigands. Now you'll find that you will be able to open the door and enter.

Curse of Enchantia

The part I can't work out with this game is where the sand monsters come up from the ground. I have tried to put the string through the two eyes either side, but it does not work.

Tom Davenport, Barry.

String is no good. Have you ever tried cutting cheese with a piece of string? Don't bother, it doesn't work. Wire is what you are looking for my son, and here is how you get some. Go to the cave with the four holes in the wall. Look in all of the holes and a creature will pop out. Go to the hole on the far right and look again. This time you'll find some twigs. Use the twigs with the seaweed which you should have found earlier and you'll find that you've made a mask. Go to the cave where the computer is to be found and look in the hole in the wall to see a reel of wire. Pick up the computer and go to the cave with the plank. Stand behind the plank and throw the computer. You will be catapulted up onto a ledge where you can pick up a magnet. Jump down and return to the hole in the wall. Use the string with the magnet, then throw the magnet into the hole. Hey Presto! You now have a reel of wire.

Monkey Island II

I recently picked up an old copy of The Secret of Monkey Island II for the first time. There are no helplines I can ring so please tell me, how do I get past the Troll?

Gae Lambert, Whittle-le-Woods, Lancs.

The Troll is after a fish. If you visit the Scumm Bar and go the rear of it, you will notice a fish lying on the jetty. It is surrounded by sea-gulls but if you step repeatedly on the loose plank, the noise will scare off the birds and you can nab the fish.

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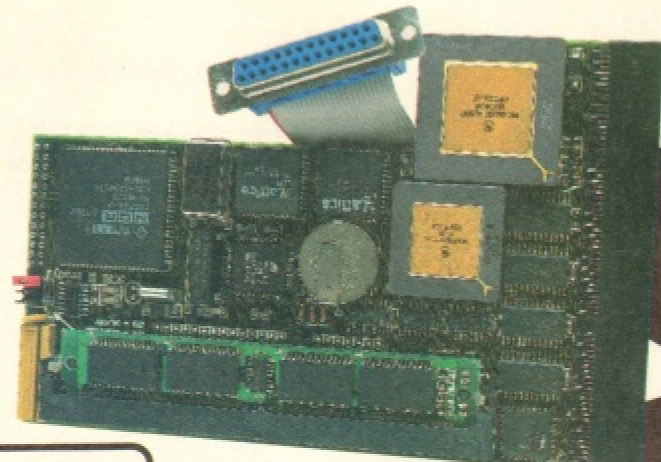
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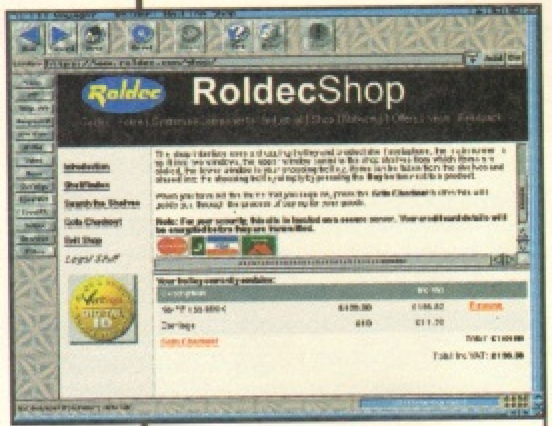
Tech Scene



Holy Gateway cow! Things are looking amazing with this bumper collection of excellent Amiga hardware and software. Check it out!



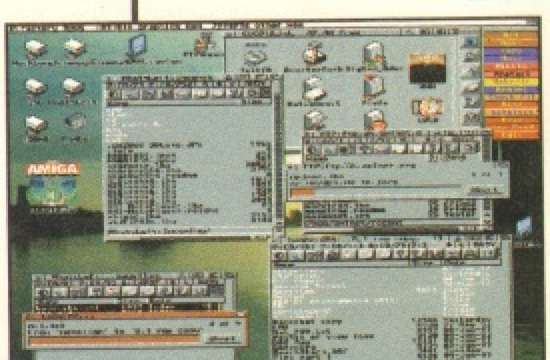
A1200 Viper MkV 61



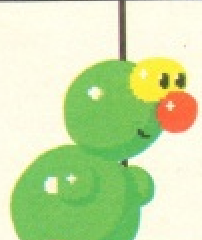
Voyager NG 50



Whippet 60



DOpus Magellan 62



PD Scene 64

BATTLE OF THE BROWSERS

The Net is where it's all happening on the Amiga, and in the next few pages, we put the Amiga's top trio of web browsers head to head and come up with some interesting results.

Voyager NG 2.90

AMIGA MAGAZINE SUPERSTAR

■ Price: £19.99 ■ Developer: Oliver Wagner ■ Supplier: Active Software © 01325-352260

Voyager's original debut was as Mindwalker, a part of the Amiga Technologies 'Surf Pack'. Development didn't cease there however, and the German author continued under the name of 'Voyager'. It was eventually re-released as Voyager-NG (V-NG), now at version 2.90, as in this review. Of the three here, it's the cheapest Web browser, but it has still pioneered some key features. Here's how it shapes up...

It's worth considering at the outset that Voyager is a whole tenner cheaper than the other browsers here. It's even available to use for free which means that you have no excuses not to try it.

Progressive

V-NG has come a long way to make the transition to a 'progressive display' browser. This was previously the sole arena of IBrowse but V-NG also now sports real time progressive display of Web images as they are downloaded. In order to do this, the browser must implement it's own loaders rather than use datatypes which are incapable of streaming data on the fly. Not only does V-NG support JPG and GIF image decoding internally but it's also one of the few browsers in the world to support internal progressive loading of the new PNG format. It doesn't have a fallback to datatypes, but with JPG, GIF and PNG, all the bases are covered.

All the browsers have full Frames support. In fact, V-NG was the first to have this feature and it appears to work faultlessly except that when resizing pages (or when finishing loading), V-NG will often take two passes, resulting in a slightly longer redraw time. Other features that IBrowse introduced are also to be found such as AnimGIFs which are now extremely prolific on the Web.

Credit worthy

V-NG was also first to add SSL or Secure Socket Layer so it's now possible to buy products on the Web from your Amiga, and be confident that prying eyes can't get to your credit card details. What's more, unlike IBrowse, V-NG's SSL is built-in and works on any Amiga's TCP/IP stack. A host of small features is also supported by V-NG such as the handy clipping of text from a web page and right mouse button activated pop-up menus for images and frames allowing you to perform certain operations on each.

Recently, the author made optimisations at the suggestion of the creator of MUI, Stefan Stuntz. The result is a considerable acceleration in the general navigation through the V-NG GUI. I found that V-NG gave the best results at dithering images to fit on a less than truecolour screen, a consideration for any Amiga users not privy to graphics boards.



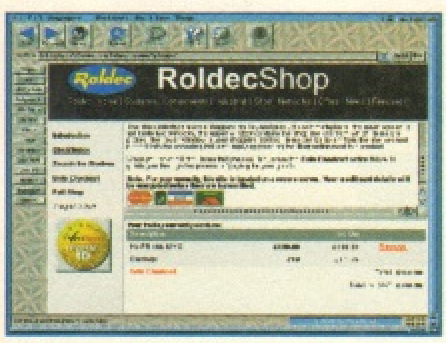
▲ This funky Voyager plug-in sends a search query of your choice to four sites and then displays the results in four different frames.

Problems

Unfortunately VNG isn't without its problems. Some peculiarities include clipping the top pixel off fonts, placing gaps between images and occasionally overlaying images on top of each. The cookie handling also goes berserk on Microsoft's web site and table borders are quite unsightly. I'm not too impressed with the recent text input class either, which is used inside forms and so on.

The bottom line is that V-NG is right up there with the features, hampered only by quirks of behaviour mostly related to HTML parsing. However, there's little doubt that it's easily the best value for money out of the browsers represented here and the restrictions of the unregistered version aren't unreasonable. With regular updates including Voyager mailing list, and the author's regular public update releases, it is a well supported product too. Voyager-NG gets the thumbs up here. ■

Mat Bettinson



▲ Voyager's built-in SSL means you can buy on the Web with confidence.



▲ The Vaporware home page makes extensive use of Frames, and Voyager copes well.

Voyager-NG

A500 A500+ A600 A1200 A1500 A2000 A3000 A4000

system requirements: 4Mb free memory, Kickstart 2 MUI 3.6 or better, HD required (5Mb).

ease of use 88%
Easy to use, configuration is straightforward.

performance 90%
Buckets of features, fast and efficient performance.

value for money 95%
What can I say, a total steal. It's not just the cheapest, you can use it for free.

OVERALL The essential Amiga web browser. **92%**

IBrowse 1.12

■ Price: £29.95 ■ Developer: Stefan Burstroem ■ Supplier: HiSoft ✆ 01525-718181

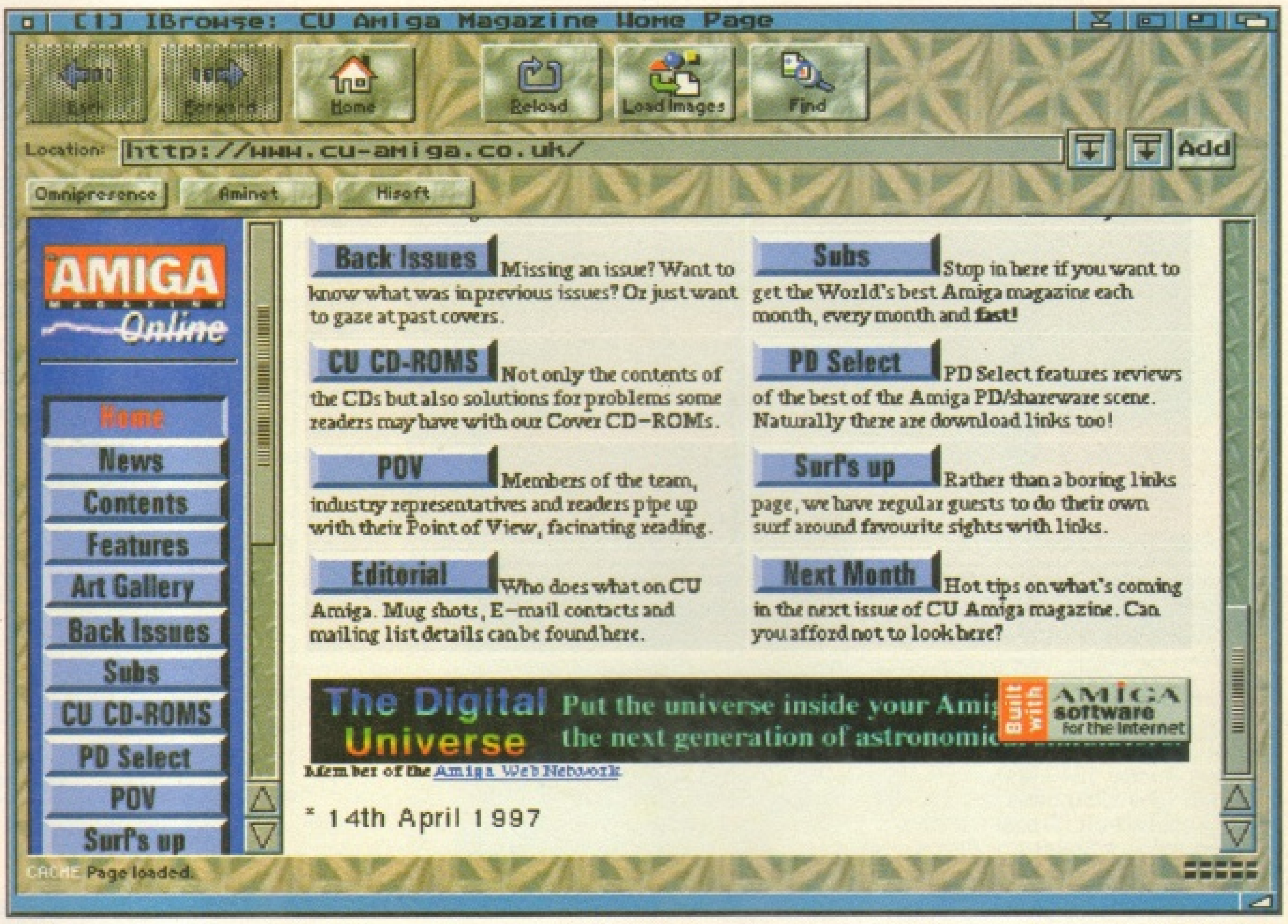
Coming from the team responsible for porting the original Amosaic to the Amiga (the first Amiga graphical web browser), the Swede, Stefan Burstroem decided to program a web browser from scratch. IBrowse has pushed the web browsing arena with its cutting edge features, so now it's time to see how it stacks up against the new competition.

In the last battle of the browsers, some readers saw that IBrowse had a higher mark in each area of our scoreboxes than AWeb, but had a lower overall mark. This was due to the inherent stability problems that have plagued IBrowse for ages. I can now report that this seems to be under control, as I only experienced one IBrowse crash over quite a long period of testing.

New bits

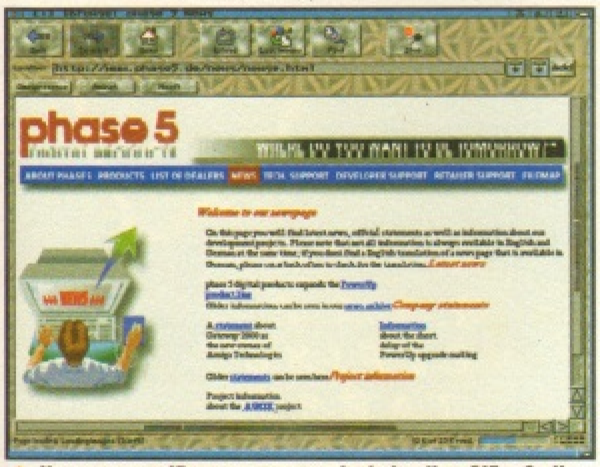
IBrowse hasn't been as well updated as the competition but it started out in front. Luckily the author has taken time out to fix problems as well as implement new features. New for IBrowse 1.12 is Frames – and very good Frame support it is, but this is universal among Amiga browsers. IBrowse still has the best progressive display, only slightly better than V-NG's since it doesn't lay out the page again to add the Frame scrollbars.

Probably the first thing noticed with 1.12 is the URL completion function. This is where IBrowse tries to intelligently guess the URL you are typing after each keypress. It can be very odd at first but quickly it makes for much quicker manual entry of URLs. Most people should more sensibly use the history buffer window instead. I do like IBrowse's new Netstat window, a feature of AWeb 'borrowed' by the other browsers though it needs a progress bar .



▲ IBrowse gets nearly everything right on our home page but, like V-NG, it sometimes overlays graphics as can been seen at the bottom.

Sadly the remapping of images on a less than truecolour screen is still quite dire. IBrowse consistently gave the worst results in this area – even at 256 colours. So, if you're planning to use less, then things will get ugly very quickly. There were also some layout quirks in IBrowse that included table rows automatically not forcing a linefeed. This breaks phase 5's news page for example. Like V-NG, it also suffers from overlapping images on occasion. The MUI GUI allows you to do some nifty things to the browser presentation quite quickly. These include; dragging the fast links to the top, side or bottom of the page, using proper pull down cycle menus in forms, snapshotting the size and position of the GUIs within, and, like V-NG, it also benefits from customised MUI settings – as evident in the screenshots here.



▲ Here we see IBrowse progressively loading GIFs. Sadly, it gets the table cells wrong with the headings askew.

Safe decoding

IBrowse includes image decoder libraries for all major classes of CPUs including the 68060. There's no doubt that Stefan's image decoders are about the fastest there are, having been heavily optimised in assembler. They've been known to crash on corrupt images in the past, but I saw no evidence of this with 1.12. Usenet news browsing still isn't implemented and neither is text clipping from the page. This really is quite annoying as these features have been often asked for in the past yet still haven't appeared since the last upgrade.

IBrowse added SSL security support for this version, but it will require a registered version of Miami as it uses Miami's built-in SSL library. If like me you buy products from the Web then you'll have to have it. The lack of text clipping and dire image mapping are going to be active hindrances for a great deal of Amiga users though. I hope they're addressed soon. IBrowse is still a darn good browser with a gorgeous progressive display. There's a demo available on the CD so you'd be well advised to check it out. IBrowse comes heartily recommended. ■

Mat Bettinson

IBrowse

A500 / A500+ / A600 / A1200 / A1500 / A2000 / A3000 / A4000

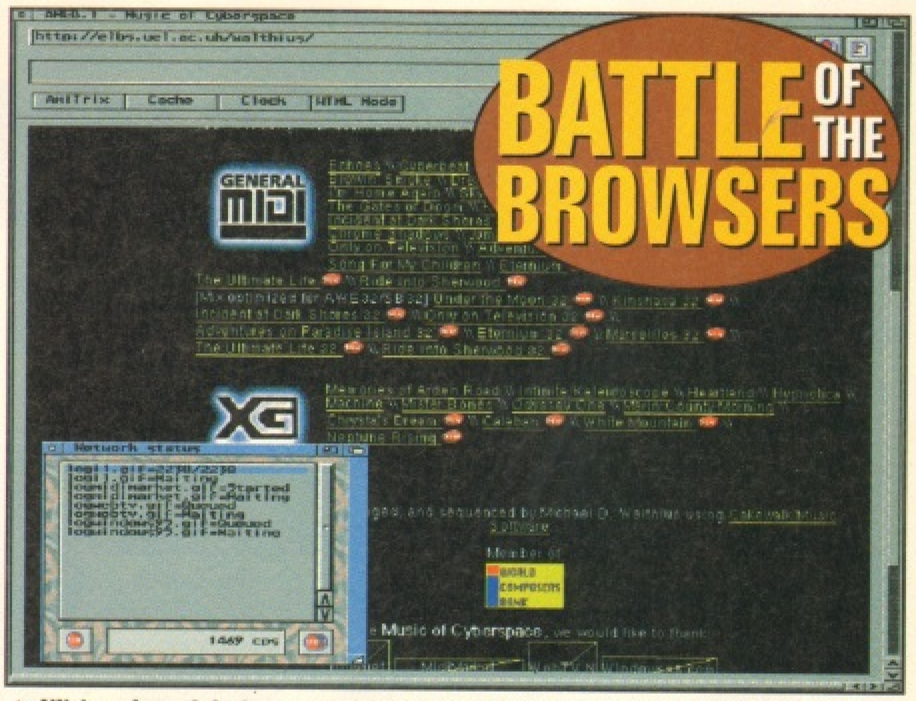
system requirements: 4Mb free memory, Kickstart 2, MUI 3.8 or higher, HD required (5Mb).

ease of use	88%
Easy to use, configuration is straightforward.	
performance	89%
Fast and laden with functions, IBrowse delivers the goods.	
value for money	85%
Not bad for a browser of this calibre, money well spent.	

OVERALL
An excellent Amiga web browser.
89%

AWeb-II 3.0

■ **Price: £29.95** ■ **Developer: Yvon Rozijn**
■ **Supplier: Blittersoft ✆ 01908-261466**



▲ **AWeb performed the best on this site, the only browser to correctly handle <NOBR>.**

The AWeb browser appeared from nowhere in a flash. Rapidly the Dutch programmed browser has achieved a great following and significant functions have been added over time. Being the most infrequently updated browser, AWeb-II 3.0 has been a long time coming but it's here now and has added a bevy of new features previously only found on the MUI browsers.

Latest update

AWeb-II 3.0, odd name I thought. Why not call it AWeb? Anyway it's certainly the most different of the browsers. IBrowse and V-NG have been competing head to head for some time, the reason for this being that AWeb has been waiting the longest for an update. It had been so long, that our own web site upgraded to Frames usage without a Framed-up AWeb in sight. It's here at last and it's actually pretty damn good as you'd expect with such a long beta testing period.

Opting not to use MUI has won AWeb many fans – no doubt about that. Not wishing to subscribe to the MUI argument at this point, it'll suffice to say that AWeb uses a combination of it's own stock Workbench Gadtools based layout and the ClassAct GUI system. The latter is used in the preferences GUIs. In the spirit of fairness, I spent a little time customising my ClassAct GUIs as far as it will allow, which means a choice of gadget type and a background image for the windows.

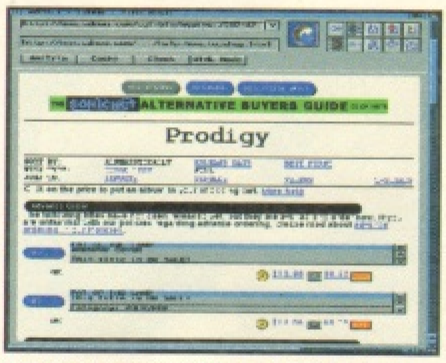
AWeb is the only browser here which still doesn't support internal decoding of GIF and JPG – it still relies instead on datatypes. This is out and out lunacy! It's completely ridiculous that after all this time, it still has nothing more than an API to allow image decoder plug ins. Dale Curry, from AWeb's publishers Amitrix, claimed that built-in image decoders are 'reinventing the wheel' and likely to produce worse results and add to memory usage. I really don't agree.

So there's no progressive loading of images at all. Only after they are downloaded will the datatype decoding process start. In practice, this slows things down and excludes browser essentials such as AnimGIFs and makes for the whole loading procedure to look nowhere near as good as the competition. That said, when it's done the results are very good. AWeb 3 has an image loading API meaning that some third party decoders should appear in the future, luckily.

I'm very impressed with the HTML layout engine of AWeb. It's consistently doing a very good job of rendering even problematic pages. Neither V-NG nor IBrowse are smart enough to put a cap on the use of <NOBR> at http://www.keybdwizrd.com. Then again AWeb sometimes loses the plot at font sizes and will render an entire page in a massive <H1>. It also has three HTML rendering modes; strict, tolerant and compatible. This may be useful for Web authoring. There's also a really nice configuration for 'styles' where headlines and special HTML tags like <STRONG> can be defined as certain fonts.

More features

There's a host of other additions too; built-in FTP, default mail-to: system built-in, cookie filter (ideal for nuking annoying cookies like AmiCrawlers only), text clipping from the browser window, cps added to the already excellent Network status window and client push/pull. On the other hand, it doesn't have SSL secure HTML support. A major oversight. It also doesn't rescale images for some reason, another minor point perhaps, but so it's another missing standard feature. I don't mind the lack of MUI features as much as I thought except for Form cycle gadgets. AWeb sees fit to use a listview instead where you must click through it to set an entry. There's a 'cycle to list' option but it applies to entries around five or less. You still need to click 50 times to select a country. Hmm... every browser in the world uses a proper pull down menu for this.



▲ **Cycle gadgets notable by their absence.**

Fast browser

AWeb enjoys fast browsing through the cache, thanks to the stashing of raw decoded images and it also has a very good HTML layout engine. It even looked good after I'd customised my ClassAct. But I can't ignore the missing features such as progressive loading, image scaling, AnimGIFs and SSL secure HTML. Results can be good on low colour screens depending on your datatypes and their settings.

AWeb has come a long way and if it addresses those glaring omissions, it has a chance at being the best all round browser. By then though, who knows what each of the other browsers will have achieved or how long it will be until their next update. Anyway, AWeb-II is still a damn good browser with some great features of its own. ■

Mat Bettinson

Browser features

	Voyager-NG	AWeb-II 3.0	IBrowse 1.12
GUI	MUI	Class Act	MUI
GIF	Internal	Datatypes	Internal
JPG	Internal	Datatypes	Internal
PNG	Internal	Datatypes	Datatypes
Other	No	Datatypes	Datatypes
AnimGIFs	Yes	No	Yes
Image Scaling	Yes	No	Yes
SSL support	Yes	No	Yes (Miami)
Text clipping	Yes	Yes	No
Mem 8-bit screen	1850K	2146K	2032K
Mem 16-bit screen	2839K	2864K	2808K
Cookie filter	No	Yes	No
Styles	No	Yes	No

AWeb-II 3.0

A500 · A500+ · A600 · A1200 · A1500 · A2000 · A3000 · A4000

system requirements: 4Mb free memory, Kickstart 2 MUI 3.6 or better, HD required (5Mb).

ease of use 80%
Some basic functions require configuring before they can be used.

performance 82%
Excellent HTML performance but other key features are lacking.

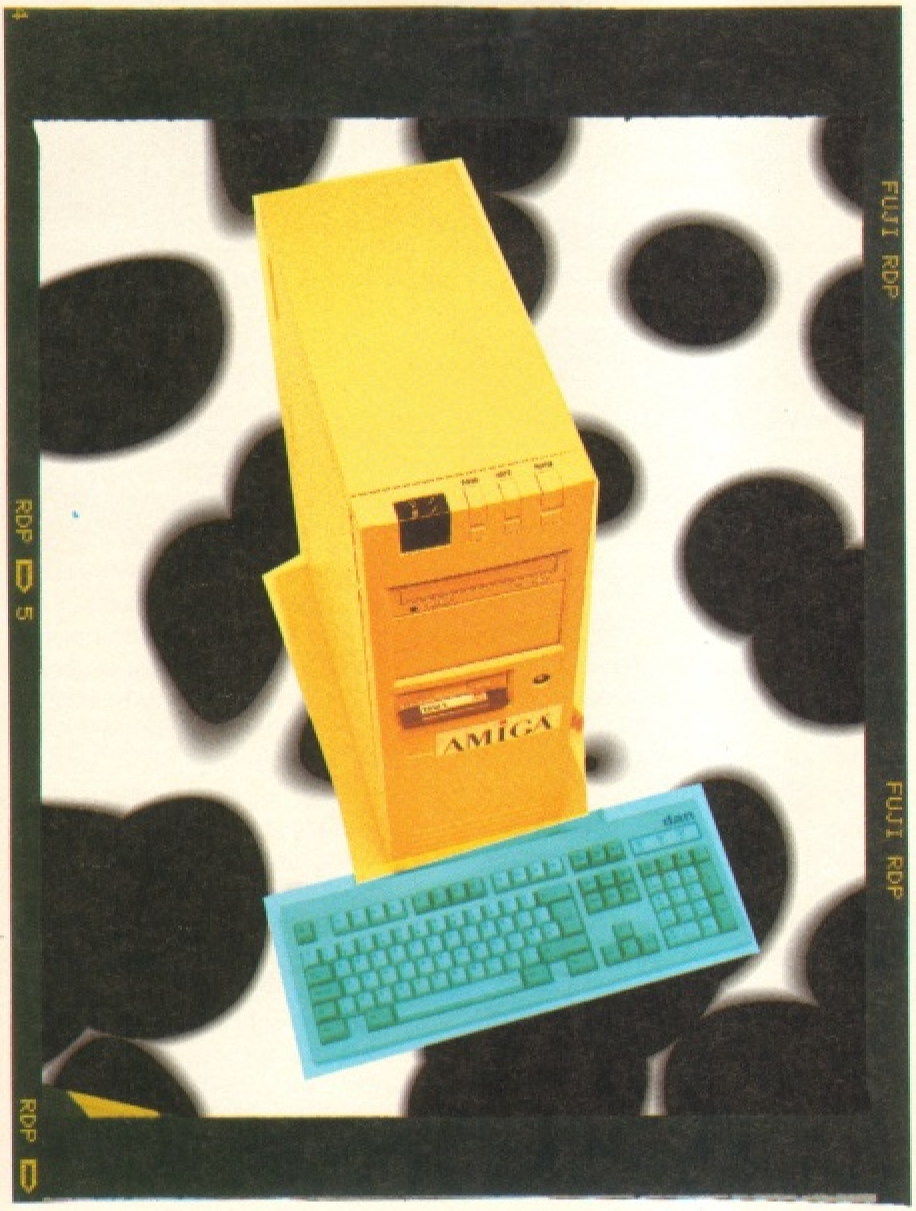
value for money 85%
The inclusion of HTML heaven adds value to an excellent browser.

OVERALL
Superb but flawed Amiga browser.
84%

DIY Tower Systems

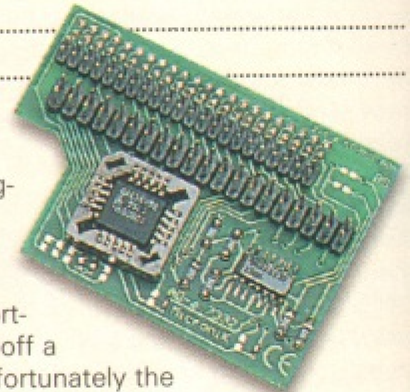
Need to know which bits to put into a tower system? Well try these...

Round-up



Micronik 4 way IDE adaptor with software

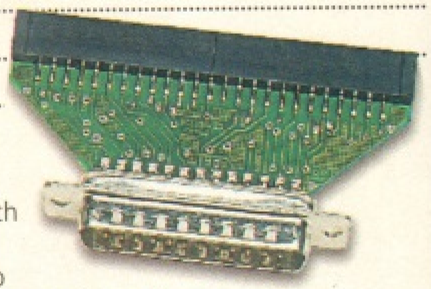
- **Available from:** Blittersoft
- **Tel:** 01908 261466
- **Price:** £29.95



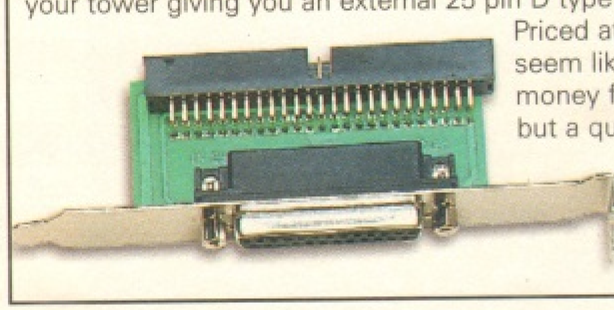
This four way has a 44 pin and a 40 pin header, is properly buffered and what's more it does come with a registered copy of George Campani's Atapi P 'n P software. It is significantly larger than the above board, but it actually fits much more comfortably, although you may have to trim off a small corner of the metal shield. Unfortunately the board doesn't have the luxury of the choice of 40 or 44 pin connector that the Eyetech buffered interface device enjoys, but having said that, it is noticably cheaper than many unbuffered interfaces. The ongoing argument of buffered Vs unbuffered looks like it will continue, but at this price the argument seems entirely academic. Whatever your preference for buffering, this adaptor is simply excellent value for money.

Micronik passive SCSI adaptors

- **Available from:** Blittersoft
- **Tel:** 01908 261466
- **Price:** £19.95



These could be the solution to all your problems if you want a DIY SCSI tower. SCSI devices come with all sorts of different connectors. If you have a Squirrel, you're going to have to find your own solution. However, if you have a Dataflyer, or one of those SCSI adaptors which plug into an accelerator card and use a 25 pin D type connector, then these two adaptors will allow you access to the full range of internal SCSI devices for your tower. The triangular version has a 25 pin male connector which plugs into your SCSI interface. You can connect a nice multiway internal SCSI ribbon cable from whatever CD-ROM drives, CD-Rs, backup devices and hard drives you feel like into the 50 pin connector on the adaptor. The square adaptor can connect to a spare header on your multiway internal cable and fits to one of the rear slots on your tower giving you an external 25 pin D type socket.



Priced at £20 each, it may seem like a heck of a lot of money for a simple adaptor, but a quick scan of a PC dealers price list shows no significantly lower costs for any similar products.

Micronik 4 way IDE adaptor

- **Available from:** Blittersoft
- **Tel:** 01908 261466
- **Price:** £19.95

This four way adaptor is a very basic, but very neat little IDE header adaptor. The tiny circuit board pushes down onto the IDE header on the motherboard and gives you a through header for your 44 pin hard drive and a 40 way header for 3.5" devices. There is no buffering of the interfaces, but as the most likely use of this would be to pair a couple of devices some distance away in a tower case with an internal 2.5" hard drive kept very close to the header, there won't be much extra cable length. Long cables are the main reason for going for a buffered device, and this is a cheap option if you don't need buffering. It gets in the way of the metal shield over the motherboard, which some people like to retain after tower conversion, but can still be fitted over it using a little cutting.

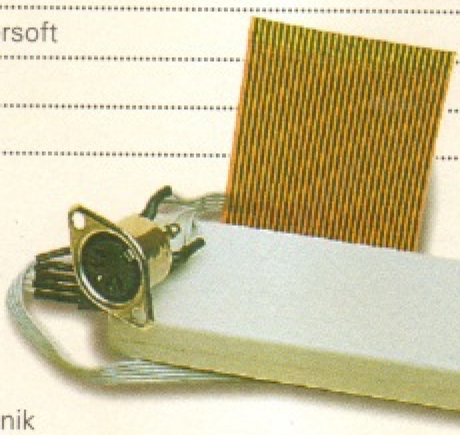


Micronik PC keyboard interfaces

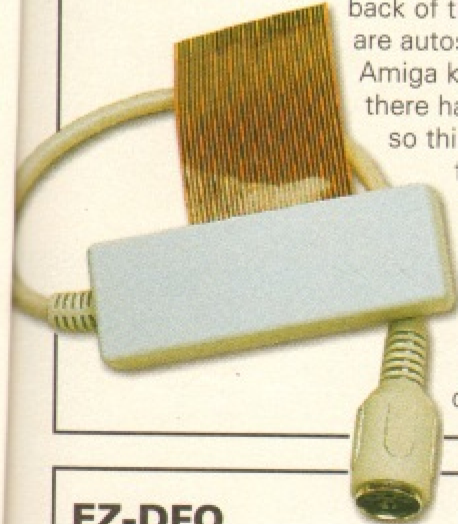
■ **Available from:** Blittersoft

■ **Tel:** 01908 261466

■ **Price:** £39.95



Here are some more keyboard interfaces which will plug straight into the ribbon connector. There are two slightly different configurations of the keyboard adaptor which is used in the Micronik tower. One version seems to have been designed for use with desktop A1200 consoles as it has a cable-mounted DIN socket, whilst the other has a DIN socket designed to be connected to the back of the case. Like the Eyetech unit, these are autosensing and can take either PC or Amiga keyboards. Unlike the Eyetech unit, there has been no thought given to mounting, so this is a problem you'll have to sort out for yourself. You will probably end up sticking the adaptor to the motherboard, as the ribbon connectors are around a third of the length of the one on the Eyetech unit. On the upside, you'll find that they don't occupy one of your tower's power connectors. Positively great units.



EZ-DFO

■ **Available from:** Eyetech.

■ **Tel:** 01642 713185

■ **Price:** £14.95

Here's a damn good solution to the problem of transferring your floppy drive to a tower. The A1200 internal floppy drive will fit fine in a case, but you have to glue the button on it and it looks uglier than a chimpanzee's backside. This tiny little board simply plugs over the floppy drive connector on your motherboard and has a through connector. Once fitted, your Amiga can use standard PC drives. As PC internal floppy drives can be bought for as little as £12, this makes buying replacement drives a doddle. You don't get to use high density disks even though you are now using a high density drive, but if you don't want the complexity and don't need the flexibility of a Catweasel, this is a perfect solution. An Eyetech interface and a high quality PC drive actually cost less than internal Amiga floppy disks, if you can find any. Alternatively look at the Micronik high density drive (top right) for a costly but flexible alternative.



Micronik internal floppy drive

■ **Available from:** Blittersoft

■ **Tel:** 01908 261466

■ **Price:** £54.95

Right, now this is something every Amiga tower user wants: a high density floppy drive. This works the same way as the original Commodore high density drive – it is a half speed device. Unlike some of the hacky but functional high density drives which various third party manufacturers have produced in the past, this is a totally plug and play device. Connect it to the floppy connector, plug in the power line, switch your computer on and it works. Stick in a low density disk and it formats to 880k, stick in a high density disk and it formats to 1.76Mb. The real beauty of this is apparent if you often need to share data with a PC. With this disk drive and CrossDOS as supplied with Workbench 3.0+, you can use PC 1.44Mb disks.
The drive comes in two forms, one described as being for A4000s, and one for A1200s. The only difference between the two is that one has a faceplate and the other doesn't. Obviously this means that if you are looking for something to go into a tower, you want the one for the A4000 – even if you use an A1200 motherboard. If you are sticking to your old fashioned console style case for the time being, or have gone for the 'sidecar' tower as detailed in the first part of our tower feature, you can go for the A1200 one instead. Although cheaper than most competing products, the price is verging on Catweasel territory without the speed or flexibility of the Catweasel. Of course, Catweasel isn't nearly as easy to use.



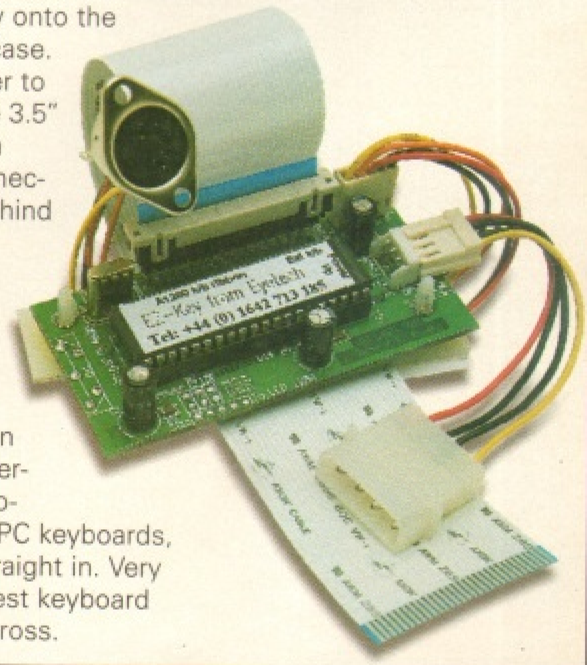
EZ-Key

■ **Available from:** Eyetech.

■ **Tel:** 01642 713185

■ **Price:** £39.95

Now this is the way a keyboard adaptor ought to work. The board has a couple of support columns with sticky pads to fit neatly onto the back plate of a tower case. An adaptor takes power to the board from a spare 3.5" power connector and a standard 5 pin din connector can be mounted behind the keyboard socket hole on the back of the case. A nice long ribbon cable extends from the board and slots simply into the keyboard ribbon connector on the motherboard. The adaptor autosenses Amiga 2000 or PC keyboards, allowing you to plug straight in. Very good stuff, and the nicest keyboard adaptor we've come across.



POWER PC TECHNOLOGY, POWER PC SPEED and POWER PC PERFORMANCE

FOR YOUR AMIGA A1200, A1500, A2000, A3000 or A4000 from Harwoods

NEW...

POWER UP

AMIGA™ GOES POWERPC™

POWER UP YOUR AMIGA...

*A further dimension is being added to Amigas with our new PowerPC based **BLIZZARD POWER BOARDS** for A1200, A1200 based Tower Systems and A1500/2000 systems along with the new **CYBERSTORM PPC** for A3000/4000 systems. You'll now be able to benefit from performance many times beyond the speed of the fastest 680x0 based boards.*

Designed as upgrades for existing systems, **Power Boards** incorporate innovative dual processor technology where a fast PowerPC RISC processor is combined with a 68k CPU, dynamically sharing memory and system busses.

While the original AmigaOS 3.x continues to run on the 68K CPU, supporting existing applications to provide backward compatibility, the PowerPC CPU is backed by comprehensive PPC Libraries which provide the functionality to integrate PowerPC into an Amiga multitasking environment.

Software developers can easily optimise their programs, step by step, porting single tasks to PowerPC code, which then run in parallel with 68k tasks. Leading Amiga software vendors are preparing ported or optimised versions of their software packages already. It is anticipated that a large quantity of software products supporting the PowerPC will be available soon.

Power Boards will be delivered with a comprehensive suite of utilities, including the PPC library, as well as tools for creative users. Among them is a Public Domain GNU C compiler for PowerPC (including sourcecode), many demo programs and utilities with sourcecode. In addition to this software, free developer support is available via FTP site.

Last but not least, a PowerPC optimised version of CyberGraphX V3 with RISC optimised CyberGL/3D plus MPEG functions and libraries is included (along with a special GGX driver to support the AGA chipset) with full and comprehensive documentation.

	Blizzard 603e PowerBoard	Blizzard 603e+ PowerBoard	Blizzard 2604 PowerBoard	Cyberstorm PPC
PowerPC CPU Clock Speed	603e 175MHz	603e 200MHz	604e 150-200MHz	604e 150-200MHz
Companion CPU	68030 50MHz	68040/68060 25-50MHz	68040/68060 25-50MHz	68040/68060 25-50MHz
Est. PPC Performance MIPS SpecFP95	@ 175MHz Approx. 250* Approx. 3.1	@ 200MHz Approx. 280* Approx. 3.5	@ 200MHz Approx. 350* Approx. 7.1	@ 200MHz Approx. 350* Approx. 7.1
Memory Option SIMM Sockets	Max. 64Mb 1	Max. 64Mb 1	Max. 128Mb 4	Max. 128Mb 4
SCSI On Board	Fast SCSI-II	Fast SCSI-II	Ultra Wide	Ultra Wide
Amiga Compatibility	A1200(+T)	A1200(+T)	A1500/2000	A3000/4000(+T)
Est. Availability	Summer '97	Summer '97	Summer '97	Summer '97
from Prices	from £280*	from £329*	from £490*	from £460*

Blizzard 603e Power Board - A1200(+T)

The new Blizzard 603e Power Board is an inexpensive Power Up Accelerator for A1200 system owners who already have a board with a socketed full 50MHz 68030+MMU processor (these CPUs have a gold finish to the top surface) eg.50MHz Blizzard 1230-II, III, IV or similar. Featuring a 175MHz PowerPC 603e RISC CPU, the board has a socket for the 50MHz 68030, expansion capabilities of up to 64Mb high speed memory and built in SCSI-II controller.

Imagine the performance from your A1200 with this low cost board!

Blizzard 603e+ Power Board - A1200(+T)

The Blizzard 603e+ Power Board is the highest spec Power Up Accelerator for A1200 systems. Featuring a 200MHz PowerPC 603e RISC CPU, the board has a socket for a companion 68040 or 68060 CPU, expansion capabilities up to 64Mb of high speed memory and built in SCSI-II controller. This board is ideally suited to those owners who already use an accelerator with either a 68040 or 68060 CPU (ie. Blizzard 1240T/ERC or Blizzard 1260 owners or their equivalents)

If you want the BEST from YOUR Amiga A1200 - this is it!

Blizzard 2604 Power Board - A1500/2000

If you own either an A1500 or A2000 you can now take advantage of PowerPC technology with this 604e CPU RISC based board which has a socket for a companion 68040 or 68060 CPU, expansion capabilities up to 128Mb of high speed 64-Bit memory, built in Ultra-Wide SCSI controller and a high performance expansion slot for expansions such as the CyberVision PPC. This board is ideal for owners of accelerators with 68040 or 68060 processors such as the Blizzard 2040 or Blizzard 2060 owners (or their equivalents).

Want the BEST from YOUR Amiga A1500/2000? - Look no further!

CyberStorm PPC Board - A3000/4000(+T)

CyberStorm PPC is the ultimate accelerator for Amiga 3000[T], 4000[T] and systems with compatible CPU slots, offer blistering 604e performance - more than 10 times faster than any 68k based accelerator on sale today! Available with clock speeds of 150, 180 and 200MHz, the companion socket for the 68k processor accepts either a 68040 or 68060 CPU. The board provides 64-bit wide extremely fast memory expansion using pairs of standard SIMMs, dynamically shared by the two CPUs. Additionally, CyberStorm PPC comes with a DMA driven Wide ULTRA SCSI controller on board offering transfer rates of up to 40Mb/sec for even the most demanding of professional applications. A 32Bit high speed expansion connector, with DMA access to the main memory, is also provided for later upgradeability.

The 200MHz version of the CyberStorm PPC provides performance of more than 350 MIPS or approximately 8.1 SPECint95 and 7.1 SPECfp95*... breathtaking speed that goes far beyond that offered by most PC systems. In the second half of the year, an advanced graphics board will become available for the CyberStorm PPC expansion slot, providing a subset of the innovative CAIPIRINHA custom chip. By having a stand alone version of the DLRP (Display List Risc Processor), this board will offer superior display capabilities through higher VRAM-based resolutions, pixel depths and speeds, as well as the potential to begin developing software supporting the functionality of the forthcoming A\BOX system.

PRICING AND AVAILABILITY:

Options with or without 68k CPUs will allow users to fit the CPU from their existing accelerator. Special prices will be available to both BLIZZARD and CYBERSTORM board users. Delivery of Power Boards is scheduled for Summer 1997 following finalisation of CE approvals. Call now for full details.

**Quoted performance figures are estimations based on specifications from Motorola/IBM and are relevant to the PowerPC processor only.*

**Registered Blizzard and CyberStorm users' upgrade prices assuming use of processor from users' own board. Owners of other makes of board or those who don't already have an appropriate CPU - please call for prices.*

Harwoods... always the Fastest Amiga Boards and NOW PowerPC Technology for Amigas too!

CYBER BLIZZARD SPEED

CHECK OUT... NEW LOWER PRICES ACROSS THE RANGE OF BLIZZARD AND CYBER PRODUCTS!

STILL THE FASTEST, NOW LOWER PRICED, NO ONE ELSE COMES CLOSE!

CYBERVISION 64/3D

64-Bit ENGINE A2000/3000/4000 (T Series) 3D VERSION 24-Bit COLOUR ACCELERATED GRAPHICS CARD.

For all Zorro-3 and Tower System A1200s with Zorro II backplanes.

LOWER PRICES!

The core of this great board is the VIRGE GRAPHICS CHIP from S3. With 3D capabilities, it's able to process complex 3D functions in hardware (eg. shaded & textured surfaces) with Trilinear Filtering and Shading/Fogging for super realistic Real Time 3D Rendering. When used with CyberGraphX 3D library, Cybervision 64/3D can even offer a broad range of 3D facilities for any software developer.

CyberVISION 64/3D... 4Mb Version — £169.95

MPEG Decoder - added to the Feature Connector to provide real time MPEG audio and video decoding at full size custom screens or, in Workbench windows (HQ display using 16/24Bit modes from CyberGraphX Workbench). Stereo audio output is provided via the supplied dedicated line output jack. Upgrade to a Cybervision 64/3D and MPEG bundle (from previous Cybervision 64) for a special low price! — £149.95

Monitor Switcher - with integrated scan line doubler. Designed to fit into the Amiga slot, this gives full automatic switchover from the standard Amiga signal to Cybervision 64/3D's output. Both cards may be fitted inside A3000/4000 models leaving three Zorro-III slots free. — £79.95

CYBERSTORM II

CAN BE EXPANDED TO A FULL 68060

AMIGA 68040ERC AND 68060 ACCELERATORS

You can choose between the 68040/40ERC Cyberstorm II or the ultra powerful 68060 version. When you fit a Cyberstorm II 68060 Accelerator to YOUR A3000, A3000T, A4000 or A4000T you can for example, render a graphic with Imagine 2.0 software in just 2.4 minutes! Compare that with 10.34 minutes on a standard A4000 '040/25! With no jumpers, both Cyberstorm II models are fully plug and play and, A4000 users even have the option of a SCSI-2 Module if they wish (A3000s already have SCSI built in).

- Up to 128Mb of standard SIMMs can be installed and you can even transfer the 72Pin SIMMs from your Amiga A4000 straight onto your new Cyberstorm.
- Optional SCSI-2 Module
- If your budget currently only covers the cost of Cyberstorm II 68040ERC, you can always upgrade later to the full 68060 processor for the extra power!

LOWER PRICES!

Cyberstorm II 68040/40 40MHz 68040ERC - 0Mb, Expandable to 128Mb — £299.95
Cyberstorm II 68060/50 50MHz 68060 - 0Mb, Expandable to 128Mb — £449.95
Cyberstorm II SCSI-2 Module — £79.95
Cyberstorm II SIMM RAM Expansions (Please call for a range of SIMM prices) — £Call

1240T/ERC TURBO ACCELERATOR MEMORY BOARD

A1200T* TURBO ACCELERATOR and MMU/FPU for *TOWER SYSTEMS
40MHz 68040 - 0Mb Standard, expandable to 128/256Mb
30MIPS with 60 Nanosecond SIMM fitted.

CAN BE EXPANDED TO A FULL 68060

A super LOW COST A1200 Turbo Accelerator Board, ideal for housing on any *Tower System A1200 main board (mechanical dimensions, high power consumption and heat emission require an active cooling cap, we therefore do NOT recommend fitting to standard A1200s without the appropriate modifications etc.). The "ERC" Processors used on these boards are recycled and vigorously tested 68040 CPUs operating at 40MHz with MMU/FPU - an excellent guaranteed and competitively priced alternative. Available options such as the SCSI-IV Kit and RAM are shared with the Blizzard 1230-IV and 1260.

LOWER PRICE!

Blizzard 1240T/ERC Turbo 40MHz 68040 and MMU/FPU, 0Mb 32Bit Fast RAM, exp. to 128/256Mb — £199.95

2040ERC TURBO ACCELERATOR MEMORY BOARD

A1500/2000 TURBO ACCELERATOR and MMU/FPU
40MHz 68040 - 0Mb Standard, expandable to 128Mb
30MIPS with 60 Nanosecond SIMM fitted.

The Blizzard 2040ERC is a super LOW COST board which offers A1500/2000 owners the opportunity to upgrade to the same performance as the Blizzard 1240T/ERC Board. Users will then be able to enjoy full A4000/040 power as well as take advantage of the built in SCSI-2 interface. The "ERC" Processors used on these boards are recycled and vigorously tested 68040 CPUs operating at 40MHz with MMU/FPU - excellent guaranteed competitively priced alternative.

Blizzard 2040ERC Turbo
40MHz 68040 and MMU/FPU, 0Mb 32Bit Fast RAM, exp. to 128Mb — £299.95

LOWER PRICE!

CAN BE EXPANDED TO A FULL 68060

1260 TURBO ACCELERATOR MEMORY BOARD

EASY TRAPDOOR INSTALLATION... No modification necessary. Reliable low heat output.

A1200 TURBO ACCELERATOR and MMU/FPU
50MHz 68060 - 0Mb Standard, expandable to 64/192Mb
38.71MIPS with single sided 60/70 Nanosecond SIMM fitted.

Offers Amiga A1200 owners FULL 68060 POWER with a board that simply plugs into the trapdoor slot. Your A1200 will then operate at TWICE or even THREE TIMES THE SPEED of an '040 based upgrade and up to FIVE TIMES THE SPEED of a standard A4000! Available options such as the SCSI-IV Kit and RAM are shared with the Blizzard 1230-IV and 1260.

Blizzard 1260 Turbo 50MHz 68060 and MMU/FPU, 0Mb 32Bit Fast RAM, exp. to 64/192Mb — £349.95

LOWER PRICE!

2060 TURBO ACCELERATOR MEMORY BOARD

A1500/2000 TURBO ACCELERATOR and MMU/FPU
50MHz 68060 - 0Mb Standard, expandable to 128Mb
38.71MIPS with 60/70 Nanosecond SIMM fitted.

Offers Amiga A1500/2000 owners the same specification as the remarkable Blizzard 1260 Turbo (A1500/2000s will operate at up to FIVE TIMES THE SPEED of a standard A4000) with FULL 68060 POWER and also includes built in SCSI-2 interface!

Blizzard 2060 Turbo
50MHz 68060 and MMU/FPU with SCSI-2, 0Mb 32Bit Fast RAM, exp to 128Mb — £499.95

LOWER PRICE!

1230-IV TURBO ACCELERATOR MEMORY BOARD

EASY TRAPDOOR INSTALLATION... No modification necessary. Reliable low heat output.

A1200 TURBO ACCELERATOR and MMU
50MHz 68030 - 0Mb Standard, expandable to 128/256Mb
9.91MIPS with 60 Nanosecond SIMM fitted.

The highest performing 68030 Accelerator available for your A1200. With its 50MHz 68030 and MMU, the 1230-IV offers BETTER PERFORMANCE at a LOWER PRICE. With a SysInfo rating of 9.91 (using a 60 n/s SIMM) you can see the 1230-IV is very fast... a performance gain of up to 500% is achieved! Via its Fast Expansion Bus, an optional SCSI-2 Controller module can easily be fitted. An industry standard SIMM socket provides for up to 128Mb of auto-configuring 32Bit Fast RAM (up to 256Mb with the SCSI-2 option using its extra SIMM socket).

LOWER PRICES!

Blizzard 1230-IV Turbo 50MHz 68030 and MMU, 0Mb 32Bit Fast RAM, exp. to 128/256Mb — £99.95
Fast 60 Nanosecond SIMM RAM Expansions - 32Bit, 72Pin — £Call
Motorola Maths Co-Processor - 68882 PGA type FPU, 50MHz — £49.95

MOTOROLA MOTIVATED

Blizzard and Cyberstorm products use MOTOROLA 68000 and PowerPC series processors. They run **WITHIN** the electrical timing specification laid down by Motorola to prevent any possible overheating/reliability problems. So, when you pay for a 50MHz CPU for example, that's exactly what you get... not a 40, 33 or even a 25MHz CPU "clocked" to 50MHz! Look out for the **MOTOROLA MOTIVATED** logo - your guarantee of our commitment to quality and reliability - **BEWARE** of "clocked" CPUs! T/ERC and ERC processors used on selected boards are recycled and vigorously tested 68040 CPUs operating at 40MHz - an excellent guaranteed and competitively priced alternative.

BLIZZARD SCSI-IV KIT

SCSI-2 MODULE for 1230-IV, 1240T/ERC & 1260, & ADDITIONAL 128Mb SIMM SOCKET
(Fast SCSI-2 DMA Controller - upto 10Mb/s transfer rates with additional SIMM socket/extra RAM)

Blizzard SCSI-IV Kit — £79.95

1230-IV, 1240T/ERC and 1260 FEATURES

- May be disabled with simple keystroke on boot up - for full games compatibility, even badly programmed/older software
- Battery backed self re-charge Real Time Clock
- High performance expansion with full 32Bit wide DMA
- Easy trapdoor installation - no modifications required (1240T/ERC fits in Tower)
- 1230-IV features PGA FPU socket allowing optional 50MHz 68882 FPU

What the Magazines think...

Blizzard products have consistently achieved the highest magazine accolades and awards!

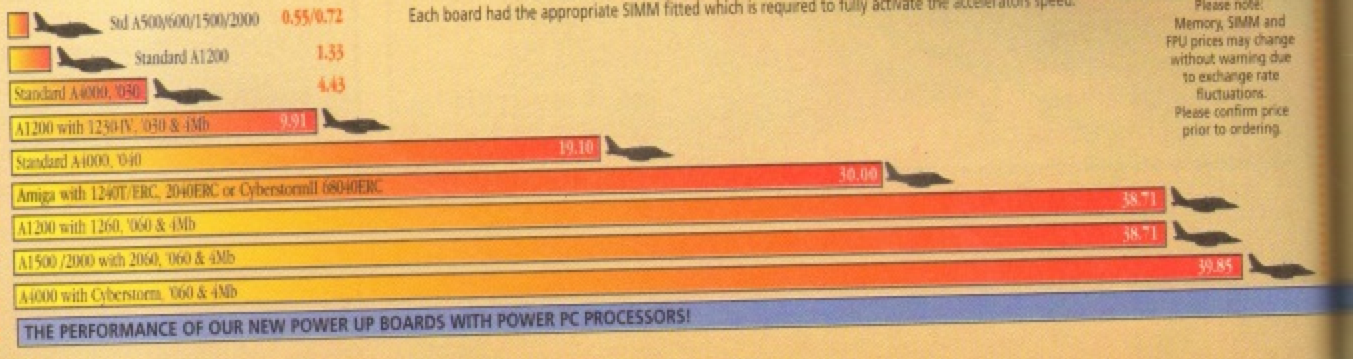
Amiga Shopper *"...1260 is destined to become the ultimate object of desire for A1200 owners."* - **91% STAR BUY Award**
Amiga Computing *"...If you want the fastest Amiga in the World, get this board"* - **92% BLUE CHIP Rating**
Amiga Format *"...Ride on the fastest A1200 in the World..."* - **95% GOLD Rating**

AMIGA GOLD · AMS READER AWARD · CU AMIGA SUPERSTAR · AMIGA Star Buy · BLUE CHIP AWARD · TOP RATED

OUR RANGE HAS WON MORE AWARDS THAN ANY OTHER

JUST COMPARE THE PERFORMANCE FIGURES FOR YOURSELF!

Comparative MIPS performance figures measured using SysInfo.
Each board had the appropriate SIMM fitted which is required to fully activate the accelerators speed.



Please note: Memory, SIMM and FPU prices may change without warning due to exchange rate fluctuations. Please confirm price prior to ordering.

COMPATIBLE WITH ANY STANDARD VIDEO SIGNAL AND S-VHS!

ProGRAB S-VHS 24RT Plus

NEW LOWER PRICES!



The revolutionary S-VHS **ProGrab™ 24RT Plus** with Teletext is not only the best way to get crisp colour video images into your Amiga, from either live broadcasts or taped recordings, it also costs less than any of its rivals. This real time PAL/SECAM/NTSC* 24-Bit colour frame grabber/digitiser has slashed the price of image grabbing on the Amiga and, at the same time, has received rave reviews for its ease of use and excellent quality results. ProGrab™ has earned honours from just about every Amiga magazine and Video magazines too! And... with ProGrab™ you needn't be an expert in Amiga Video Technology, a simple 3 stage operation ensures the right results... **Real Time, after time.**

STAGE 1

Select any video source with S-VHS or composite output. This could be your camcorder, TV with SCART output, satellite receiver, domestic VCR/player or standard TV signal passing through your VCR/player... the choice is yours.

STAGE 2

With ProGrab's software, select an image you wish to capture using the on screen preview window and Grab (because the hardware grabs frames in real time, there's no need for a freeze frame facility on the source device). Once grabbed, simply download and view the full image on your Amiga screen. ProGrab also includes a Teletext viewing and capturing facility from either TV or satellite sources.

STAGE 3

Use the 'grabbed' image with your favourite word processor, DTP or graphics package. ProGrab really does make it that simple!



ProGrab™ 24RT Plus...

- Supports all recent Amigas and is also fully AGA Chipset compatible. You can render images in any Workbench screen mode resolution including HAM8 mode (Amiga RAM permitting).
- Saves and Loads images in IFF/ILBM, IFF/ILBM24, JPEG, BMP, PCX, and TARGA file formats. ProGrab saves animations as Anim5 files and animations with sound (requires PCMCIA interface and separate sound sampler) as Anim5 + 8SVX files. A range of image processing effects, palette computing routines (AGA only) and dithering methods are featured in ProGrab Version 2.6.x. Photogenics fully supports ProGrab with a custom 'Loader' to enable grabs directly from within the program - this direct input method will save YOU more time when handling large images.
- Software has built in mono and colour animation facilities. Number of frames is dependant on Amiga RAM.
- Release 2.6.x software now includes...
  Additional Teletext Facilities - with either terrestrial or satellite TV signals.
  Larger Preview Window - double resolution and four times area of previous ProGrab software.
  International Support - now compatible with composite PAL, SECAM and NTSC - straight from the box.
  Larger Preview Window - double resolution and four times area of previous ProGrab software.



ProGrab™ 24RT Plus costs just £99.95 LOWER PRICE!
and is supplied with just about everything you'll need*...

- ProGrab™ 24RT Plus Digitiser
- Latest ProGrab Version 2.6.x Software
- Mains Power Supply Unit
- Parallel Port Connecting Cable
- User Manual
- Input sockets for Composite and S-VHS.

• A video source cable will be required to match your own equipment - ask us for details.
• Standard ProGrab hardware is PAL/SECAM/NTSC compatible. Interlace mode options are available with PAL & SECAM only.
ProGrab supports any Amiga with Kickstart 2.04 or later and a minimum of 1.5Mb free RAM.

PCMCIA Interface - A600/1200

ProGrab's optional PCMCIA Interface includes the latest version software and extends performance for serious or professional users - offering the following benefits...

- Faster downloading times (up to FIVE times quicker)
- Improved animation speeds of up to 11fps (mono) and 3.5fps (colour)
- Saving of animations direct to your Amiga's hard drive
- Freeing of your Amiga's parallel port for use by a printer or other peripheral
- Sound sampling and animation capabilities (separate sound sampler required, see right)

PCMCIA Interface LOWER PRICE! £29.95

Stereo Sound Samplers

Two high quality 8-Bit Sound Samplers, specifically designed for use with our ProGrab 24RT digitisers, are available (PCMCIA Interface required).



The Hi-Fi version features the same 30MHz A/D convertor used in the ProGrab, maximum frequency is therefore only limited by the Amiga's hardware.
It also has a higher band width (40Hz to 20KHz) than our standard sampler.

Standard Stereo Sampler £19.95
Hi-Fi Stereo Sampler £24.95

ProTel™ Terrestrial/Satellite Teletext Decoders

Amiga or PC add ons for grabbing terrestrial or satellite TV Teletext pages which don't need a dedicated Teletext TV/Video to operate... required signal is simply the output taken from a standard VCR or a TV that provides a suitable video out signal. Once information has been downloaded, ProTel allows you to view pages instantly... no more waiting whilst your TV searches!

ProTel™ for Amiga



Stand alone unit designed to match your Amiga allowing files to be exported as ASCII Text for use in your word processor or saved as IFF graphics for DTP presentations.

ProTel™ Amiga Teletext Decoder £44.95

ProTel™ for PC



NEW

ProTel PC Teletext Decoder - internal ISA PC card.

- Friendly software
- Capture speeds of 1000 pages in 2 mins
- Background tasking • Easy configuration
- Save page files (ASCII, BMP, ProTel formats)
- Native 32Bit Windows '95 application
- Requires 386DX PC and 8Mb RAM (12Mb Rec.), Windows '95/3.1 or Workgroup 3.11, VGA display, Mouse and 1 free 8/16Bit ISA slot - MINMUM
- PAL and SECAM

ProTel™ PC Teletext Decoder £29.95

camcorder — *Camcorder User commented... "If you're looking for a high resolution 24 bit digitiser then, at this price, ProGrab 24RT represents great value for money."*

ProGrab™ - Voted as The Best Video Hardware *product for the Amiga. Especially pleasing because the award comes from Amiga Shopper magazine's readers... Satisfied Customers!*

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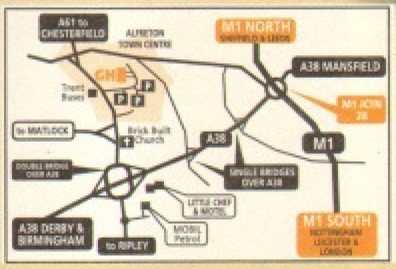
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NEW... Final Writer 97



The Best of Both Worlds
Amiga users have the best of both worlds with SoftWood's new Final Writer 97. Building upon what is widely accepted as the best word processor for the Amiga, SoftWood has added easy to use, trouble free desktop publishing functionality to Final Writer. With new Final Writer 97 it is possible to create just about any document you can imagine - quickly, easily and without frustrating program errors.

Final Writer 97 was born out of the necessity for a powerful, bug-free, simple to use way for Amiga owners to create newsletters, brochures and forms in addition to documents normally created in a WP. As you will see, Final Writer 97 does this and more. Over the years Final Writer has matured from the first Amiga word processor to offer outline fonts (originally known as Final Copy) to now the first word processor on any computer to offer both word processing and a rich set of desktop publishing capabilities.

New Features
Can you use the new features in Final Writer 97? Consider how you use a typical word processor. First, you begin entering text at the top of page one. As you enter more text it must be added to text you've already entered. With the exception of small text blocks in some word processors, you can't normally enter text anywhere on your page.

Now consider what you can do with a desktop publishing program. In a desktop publishing program you can enter text anywhere on a page and continue that text on any other page. You've seen this technique used in newspapers and magazines where a feature or article starts on page 1 and is continued on page 5. You've also seen columns of different widths on the same page as well as headlines that span more than one column and multiple lines. All of these layouts can be created using the new Text Frames feature.

Final Writer 97 combines the most comprehensive Word Processing features, with Desktop Publishing functionality, in one easy to use package, for Amiga owners who want the best of both worlds. From simple correspondence to complex newsletters, Final Writer 97 handles all tasks with ease, meaning for the first time on Amiga, Mac or PC, there's a product worthy of the name 'Document Publisher'.

With these new features you can:

- Enter text anywhere on a page
- Continue text on any other page
- Resize the space or frame that text is in
- Flow text around other text
- Set "Snap-To" guides to align text and graphics
- Position text and graphics one pixel at a time

SoftWood has not changed the way you are used to working in Final Writer, they have simply provided new tools. These new tools along with the features Final Writer already incorporates will allow you to create newsletters, forms, brochures and other documents never before possible with a normal word processor.

Final Writer 97 truly offers the ultimate in document creation. Whether you are typing a simple letter or producing a complex newsletter, Final Writer 97 gives you the power to do your job quickly and easily.

Why should you upgrade?
You've kept your Amiga because it's still the most powerful, easy-to-use computer on the market. Now, enhance your software library by upgrading to the most powerful, easy-to-use word processor on **any** computer.
System Requirements: Amiga with a Hard Drive, Workbench 2.04 or above and a minimum of 2.5Mb RAM (more recommended).

SoftWood Final Writer 97 £49.95
Upgrades are available for registered users, please call for prices.

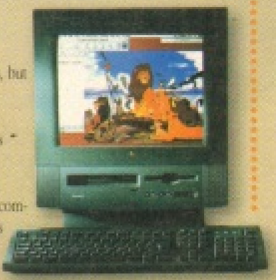
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Final Writer Lite	£19.95
Final Calc	£64.95
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THE APPLE ALTERNATIVE

IF YOU'VE REALLY GOT TO BUY A NEW SYSTEM TODAY...
the next best thing to your Amiga could be an Apple Macintosh.

BUT WHY MACINTOSH?
Just like your Amiga, all Macs are Motorola based but have had the advantage of PowerPC RISC CPUs for some time - remember, even Pentium PCs in Windows™ systems are still merely CISC processors!
Like the Amiga, Macs were designed from the outset to be an easy to use system with their windowing environment fully integrated - not bolted on later. And... Macs not only outperform other PC systems, but have recently become very competitively priced too.



Software: there are over 1800 titles specifically written for PowerPC Macs alone, plus thousands from pre PowerPC days which are still compatible. Industry standards such as Word, Pagestream, Word Perfect, FileMaker Pro, Excel, Quark XPress, Photoshop and many others have been developed for Macs.
Creativity: Apple still lead the creative world - 80% market share in colour publishing, most web sites are authored with Macs and post production video editing is dominated by the Macintosh too.
The magazine you are reading now was published using Macs!
Internet and Communications: all Macs are Internet Ready - many include built in modems and fax facilities etc. and standards like Netscape and Internet Explorer ensure the Net is easily accessible.
Connectivity and Expandability: all Macs incorporate built in networking and external SCSI connections - adding printers, drives, scanners etc. really is plug and play!
Education and Edutainment: Macs offer you the advantage of all the latest software from the likes of Dorling Kindersley, Microsoft etc. to help with the whole family's learning skills.
Multimedia: Apple is the World's No.1 Multimedia PC Vendor!
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Cinema 4D 4.2.CD Edition



■ Price: £199.95 ■ Upgrades from: £29 from v4.2, £69 from v2.0.
■ Supplier: HiSoft © 01525 718181 ■ Web site: http://www.hisoft.co.uk

Amiga revival continues with another incarnation of Maxon's Cinema 4D.

For those of you that might have been living on a desert island for the past 12 months, Maxon's Cinema 4D stands out as one of the latest Amiga success stories. It's a high quality, four-dimensional (length, width, height and time) modelling/animation package that is now also available on those horrible-to-use PCs and infuriatingly inflexible Macs. So it's slightly ironic that the CD Edition (version 4.2) has made it to the Amiga last but, now it's here I'm very pleased to say that it seems to have been well worth the wait.

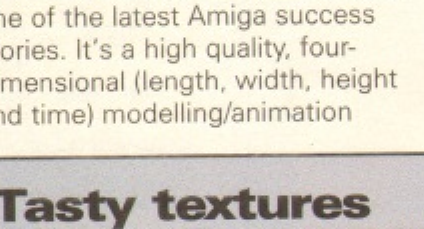
Cinema 4D has always seemed uncannily fast and stable, but its interface could be tedious to use, with complex procedures for certain functions, no-where more so than in the material manager. In versions 2.0 and 3.0, to change a material and apply it to an object you had to follow a long, laborious process of menu selections.The highlighted box on the left shows how easy this function now is.

Tasty textures

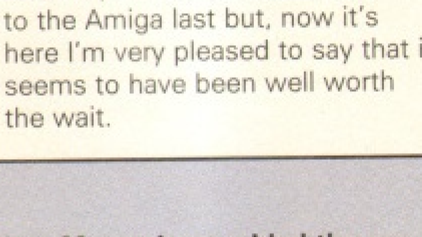
With the latest Cinema 4D CD Edition, Maxon have added the useful you have a pretty material manager window that sits anywhere on the screen and can be resized to your requirements, just like a normal Amiga window. Now, when you want to adjust and apply a material, you just double-click on its icon and up pops an easy-to-use editor interface where you can happily adjust the material to your requirements and see an example of the new material, rendered in real time. When you've finished just click on OK and the interface closes. Then select the object you want, click the material icon, go to 'Apply' in the new material pull-down menu and 'Hey Presto', job done.

Thanks to the new, multi-coloured editor option, the wireframe of the object is already synchronised with the new material colour, making it easier to identify the parts of your model on screen.

This edition will also allow an infinite number of texture maps to be applied to a material, along with customised highlight widths. This means that, with only a little bit of practice, you can easily generate your very own personal library and include all of your weird and wonderful materials.



▲ Using the Materials Manager is quite simple. Just click on one of the material icons and the material becomes active.



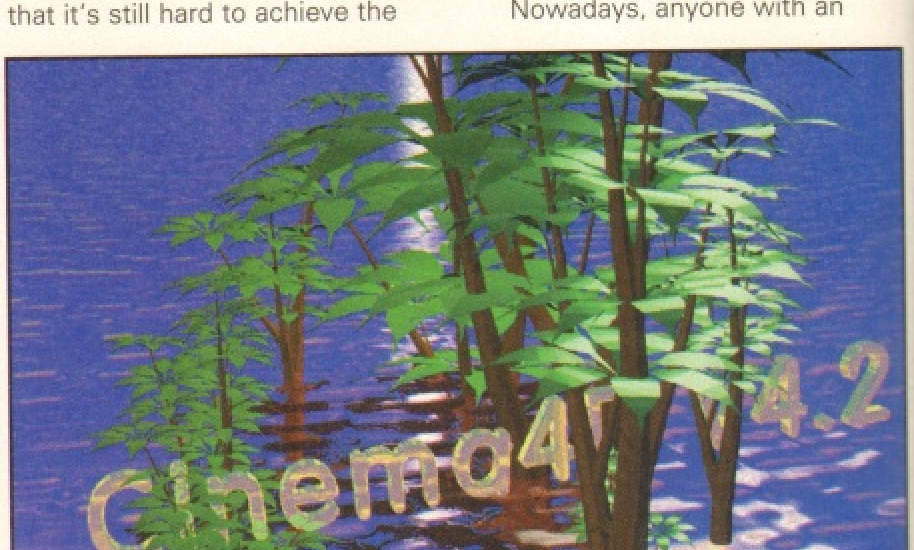
▲ Ease of material use is aided by a simply double click on a material icon to access the handy material editor.

Modelling tools

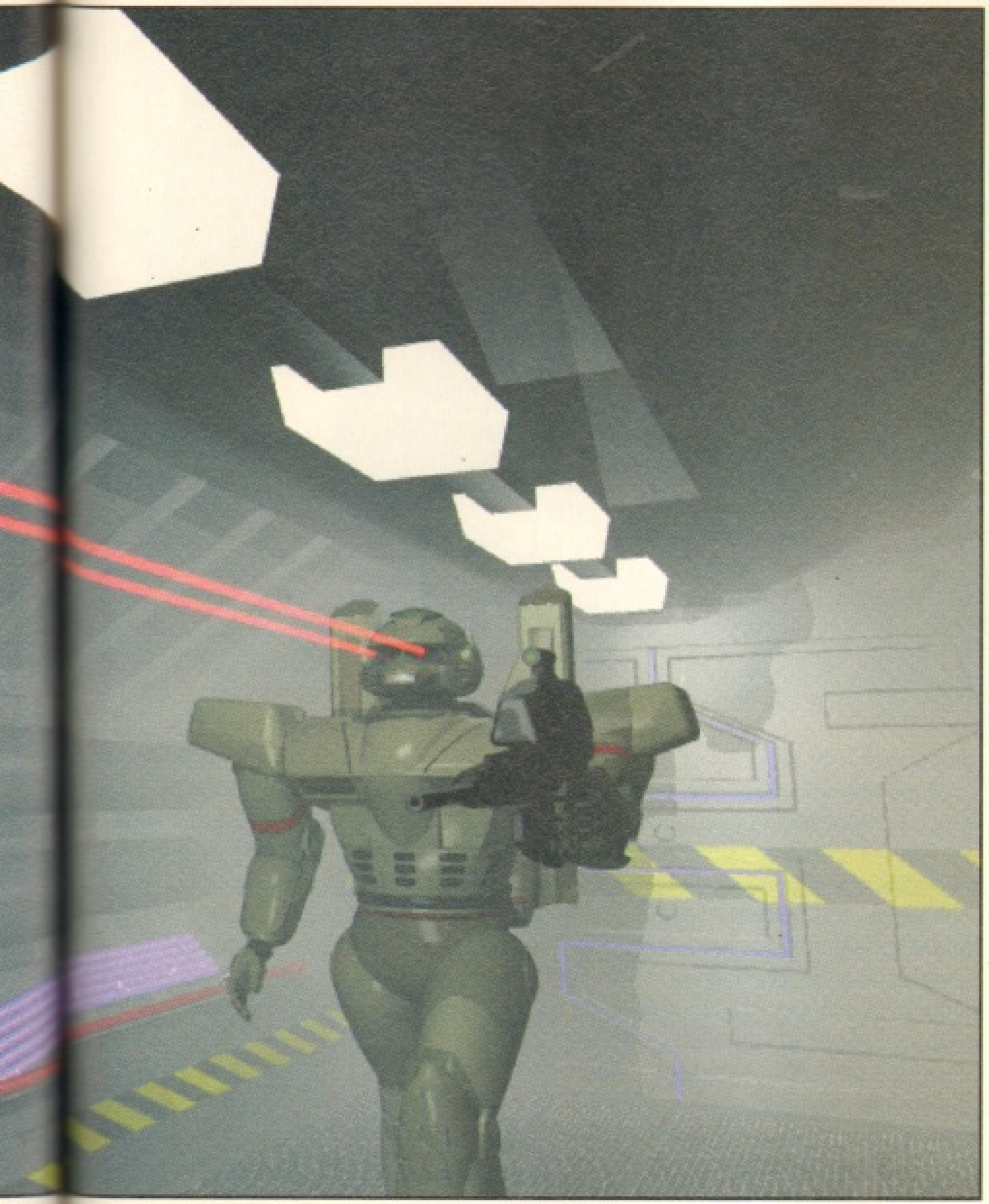
As before, Cinema 4D offers a choice of primitive objects (cones, pyramids, perfect spheres...) and the essential range of modelling tools (path, extrude, Boolean...) so it's therefore slightly disappointing that it's still hard to achieve the exact results you want.

Cinema 4D can certainly produce some great results though but producing specific fantastic results can be awfully hard – path objects remaining a case point for anything remotely complex.

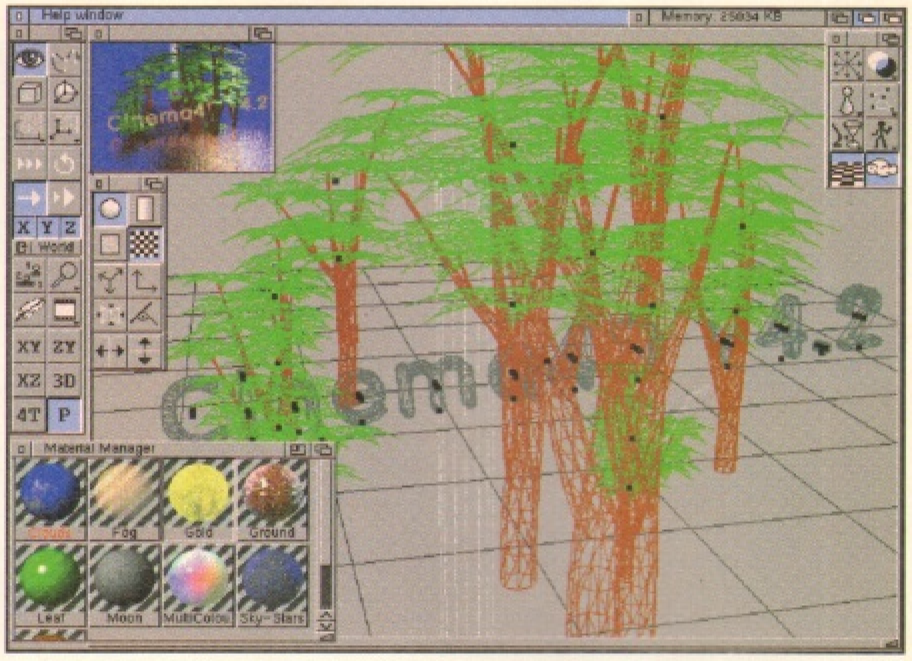
Nowadays, anyone with an



▲ Despite the lack of organic tools it is still possible to model organic looking scenes. This one was probably originated by Captain Picard.



▲ Great for making mechanoids, but not so good for realistic renders of human beings.



▲ The new, colourful editor screen, with a small, rendered image of the scene (top left).

interest in graphics and animation want to generate life-like renders so the inclusion of organic-style modelling tools, such as meta-nurbs and metaballs, would certainly have improved matters. Sure, Cinema 4D can happily model buildings, robots, spaceships and cups of tea but just you try and produce a life-like person, animal or landscape and you'll soon be losing your hair faster than Captain Picard.

Easy does it

Complex modelling aside, Cinema 4D remains one of the easiest packages to get to learn and newcomers should have little difficulty rendering their first scene on day one. As you can see from the renders on these pages, which have been easily adapted from the CD's bonus drawer, perseverance can pay off. If you are a complete newcomer however, you really won't need to panic either. Cinema 4D's manuals are both logical and easy to follow, and contain several tutorial examples to help you get on your way.

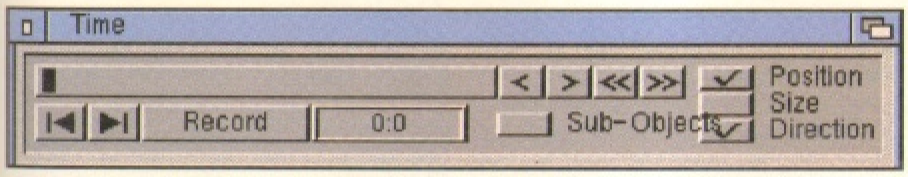
Animation

Animation remains one of Cinema 4D's most powerful and easy-to-use features. Basic, keyframe animation takes about five minutes to learn, while adding the built-in special effects (explode, deform, melt...) can be achieved in an hour or two. This latest version brings the addition of full material morphing – removing previous limits on texture types. For life-like, and believeable walking models there's still no bones option but there are inverse kinematics, with parameters for angle, damping and acceleration.

Playback

The supplied version of MainActor will let you play animations in HAM or, if you have an AGA machine, HAM-8.

New to this edition are the additions of realistic soft shadows, lens flares behind transparent objects and improved anti-aliasing. The ease with which Cinema 4D can control visible light is totally unique and, in this respect, it even gives LightWave 5 a severe thrashing. All that it really needs now is fractal noise for generating plasma beams.



▲ Animating with keyframes is nearly as easy as using your video recorder..

Rendering

To boost the performance, direct, internal support for 68060 accelerators and CyberGraphX compatible graphics boards has been added to the program.

Thanks to the speed of the ray-tracer, you can easily work on a scene whilst rendering others, with the ability to prioritise processing power to the most important job. New support for a 24-bit Workbench mode means you can quickly render a full-colour test image onto the editor screen, while you continue working on the editor. Cool! There is almost no fear of system failure either as the only time Cinema 4D ever seems to crash is when using CinemaWorld or CinemaFont.

Is 4D for you?

If it is your all-encompassing intention to produce fully-professional organic renders, then even at its rather frightening price of £1000+, LightWave 5 almost certainly remains the best choice. Otherwise, at under £200, Cinema 4D 4.2 CD Edition has to be the way to go. Modelling can be tricky but its stability, rendering speed and overall ease of use simply can't be beaten. However, it would be rather silly to count out the promising Aladdin 4D, which we will review next month, or the forthcoming Imagine 6.0. However, until they reach the light of day, it remains to be said that Cinema 4D CD Edition, is the King of the Hill, for now... ■

Richard Bradford

Upgrade?

The upgrade includes a colourful addendum, highlighting all of the new features in HiSoft's typically clear and logical manner. From version 3 (floppy or CD) you can upgrade to the version 4.2 CD Edition for the sum of £29. This will include the complete versions of MagicLink and MainActor, in addition to the interesting but flawed CinemaWorld and CinemaFont. If you're thinking of upgrading from version 2 it will cost you a total of £69. In either case, this edition seem's well worth upgrading for the new material manager alone.

Cinema 4D CD Edition

A500 · A500+ · A600 · A1200 · A1500 · A2000 · A3000 · A4000

system requirements:
Hard drive, 3Mb free RAM, WB2.04+, 68020+ and CD-ROM.

ease of use..................90%
Apart from some complex modelling its dead easy.

performance..................93%
Brilliant performance if not quite market leading on organic modelling.

value for money.............93%
With it plethora of features it's amazing that is costs Less than £200 Brilliant.

OVERALL
A great product that just keeps getting better.
92%

Whippet

■ **Price: £49.95** ■ **Developer: HiSoft** ■
Supplier: HiSoft © 01525-718181
http://www.hisoft.co.uk



The Amiga's serial port isn't up to much, especially when using a new, high speed 56K modem. Using USR's 'X2' or Rockwell/Lucent's 'K56Flex', these modems need to link to the Amiga at a speed of at least 115200 baud, preferably more. Unfortunately, 115200 is the highest rate the Amiga's serial port will run at and it doesn't do that very well. With a pitiful single byte FIFO (first in, first out) buffer, interrupts are generated thousands of times per second in order to empty it. If they aren't serviced, data loss occurs – if they are it eats the CPU's power.

What we need is a replacement serial port and this is what HiSoft supplied with the PCMCIA Surf Squirrel. This unit was an update to the Squirrel SCSI interface which had a built-in high speed serial port. The Whippet, reviewed here, is much the same only without the SCSI interface. The only connector on the Whippet is a small 9 pin serial port. A standard modem 9 to 25 pin serial cable is supplied also.

In terms of use, the Whippet does exactly what it says on the tin, or cardboard box in this case. Installation of the software is extremely basic, it's just a whippet.device copied into devs. I fired up Miami connected to a dual channel, 128K ISDN terminal adaptor, selected 460800 baud and linked up first time. CPU time was noticeable due to the technicalities of the Whippet's software interrupts but overall, this was not a problem. With no buffer overflows, even at this very high serial rate, I downloaded at 15K/s.

Since the Whippet will deal with this very high rate with no problem, it's going to be fine at 230400 for a 56K modem.

Personally I dislike PCMCIA with a passion. As usual, a pin bent when I plugged in the Whippet and some delicate surgery was needed to straighten it out. If you're careful inserting it and you don't slap it in and out too often, it should be fine. However, it's an unsightly and bulking addition to the side of your A1200.

Overall, the Whippet's simple installation, good performance and overall high quality will let your Amiga get the most from the Internet. It's also bound to work a real treat with a serial network. Another great HiSoft product, as we've now come to expect. ■

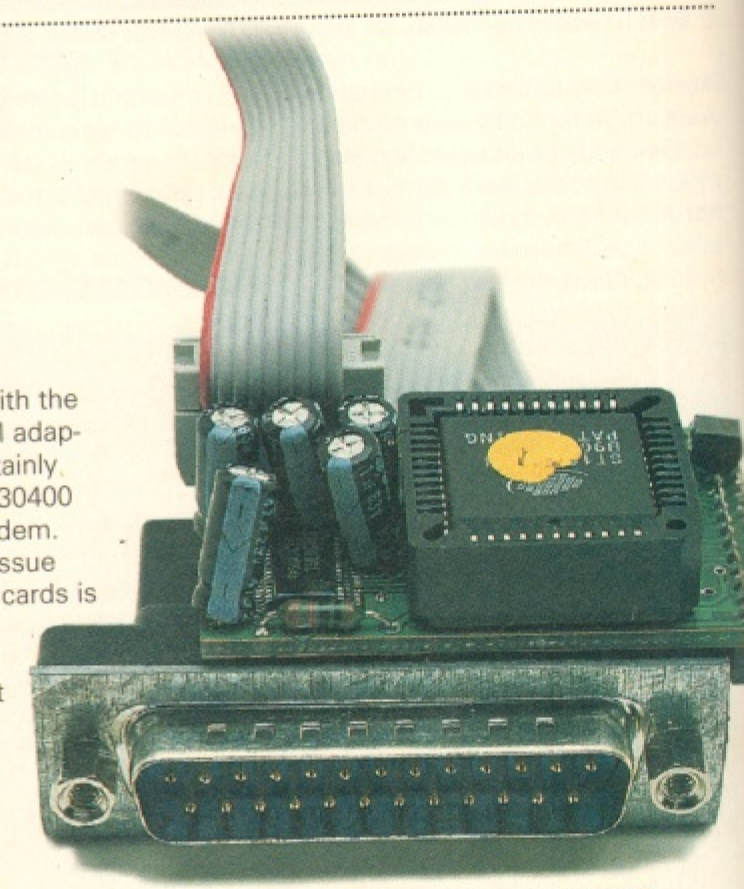
Mat Bettinson

CD32 A500 A500+ **A600 A1200** A1500 A2000 A3000 A4000

85%

Port Plus Jnr

■ **Price: £49.95** ■ **Developer: VMC**
■ **Supplier: Eyetech © 01632 713185**



Along the same lines, the Eyetech Port Plus Junior (AKA HyperCOM x), is a high speed serial port for the A1200. If you caught the review of the bigger brother with two serial ports and a parallel port in last month's issue, you'll know it uses an unorthodox way of connecting to the Amiga.

The Port Plus Jnr plugs into the internal clock connector inside the A1200. We've heard reports of some A1200s not having this connector so it would be a good idea to check first. It's located in a recess in the RF shield, near the floppy drive connectors. The Port Plus Jnr, like its big daddy, plugs on to the connector snugly and occupies the recess perfectly.

A lead then goes to a single 25-pin D type serial socket, just like the A1200's existing serial port. Unlike the Port Plus, since there's just the single port, it will fit into the spare socket on the right hand side of the A1200. It needs to be screwed into the case but it's a better solution than the standard PC blanking plates – these would trail out the back with the Port Plus. Of course if your A1200 is in a tower, the blanking plate is desirable. In this case there are usually holes for spare 25 pin D sockets and it should be possible to screw this neatly to the case.

Performance wise, the Port Plus Jnr is even better than the Whippet. That's due to the hardware interrupt available on the clock connector and its huge 32 byte FIFO. To be honest, the difference wasn't really noticeable at 460800bps with the ISDN terminal adaptor and it certainly won't be at 230400 for a 56K modem. The biggest issue between the cards is the physical connection; here the neat internal Port Plus Jnr makes the difference and it leaves the PCMCIA slot spare. It's the only solution for an A1200 tower setup.

My only real reservation with the Port Plus Jnr is that it should be cheaper for the tiny PCB with stock components. Otherwise this is a faultless product and essential to get the best speed out of the Internet. Get it. ■

Mat Bettinson

CD32 A500 A500+ A600 **A1200** A1500 A2000 A3000 A4000

88%

Viper 630

■ **Price: 4Mb @ £115.95 8Mb @ £129.95**

■ **Developer: M-Tech** ■ **Supplier: Power Computing**

✆ **01234 851500**



The Amiga's old 68000 CPU is really showing its age these days. Those of you with A600s have been pretty much stuck with it. There has been one option in the past, the hard to install Apollo 620, but now Power Computing step in with this more powerful rival, boasting a reasonably meaty 40 Mhz '030.

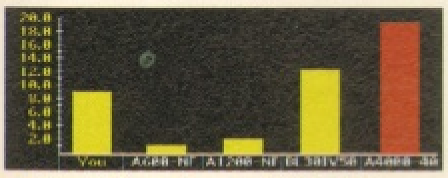
The Viper 630 piggybacks onto the 68000 CPU and comes in 4Mb or 8Mb versions with a 40Mhz '030. The memory is surface mounted and not upgradeable.

Although not as troublesome as the Apollo 620, fitting isn't easy. The metal shield over the motherboard has to be cut. The board covers the cradle sockets, so you'll need to move your internal hard drive, and probably have to buy a longer cable to do it. A capacitor situated next to the CPU gets in the way of the socket, and although it has a corner shaved to give space for this, you may have to shave a bit more. Even then, the front of the board is free floating and has a tendency to drop forwards, pulling the board off the chip. There really ought to be some support supplied, but insert a spacer and this board is more stable than the Apollo offering.

The '030 in this one is a pretty major improvement over Apollo's 020 and wipes the floor with it in terms of speed. As the AIBB tests show, this card pushes an A600 to levels similar to top of the line A1200 '030 cards, boosting an A600 to around nine times unexpanded speeds. In terms of value for money, the price is pretty good, with all sorts of offers thrown in, including a tenner for the brilliant Wordworth Office 6 on CD. Power will sell you a cheap FPU to go with the board too – highly recommended for maths intensive software.

We have some reservations about advising people spend money expanding an A600. If you are certain that it is all you'll ever need for your 600 then great. If you want to go PowerPC one day you'll have to get an A1200, and given that similar spec boards for an A1200 cost £25 less and are 10 times easier to install, you should seriously think about ultra cheap second hand A1200s instead. ■

Andrew Korn



▲ Viper 630 speeds up an A600 by 900%

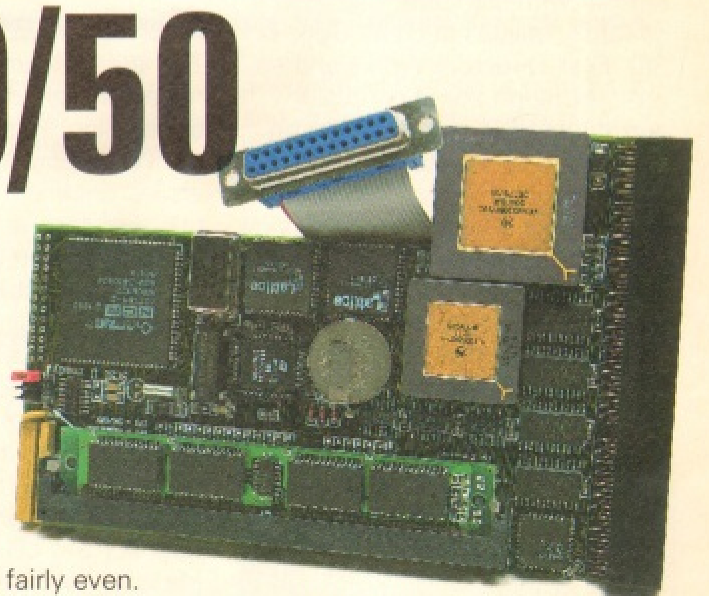
CD32 A500 A600 A1200 A1500 A2000 A3000 A4000 — **A600**

88%

Viper MkV 1230/50

■ **Price: £139.95** ■ **Developer: M-Tech**

■ **Supplier: Power Computing** ✆ **01234 851500**



The most powerful unit in Power's current line of budget accelerators is the Viper MkV which runs a 50Mhz '030. Unlike the other cards in their current release range, this one sports a SIMM socket to allow you to plug in your own industry standard memory modules. Having to compete against the now, really cheap Blizzard, the Viper needed a gimmick to push sales and has found one – a built in SCSI2 interface.

For £170 you get a full MMU '030 at 50Mhz, an FPU, a SCSI2 adaptor and Breathless. An extra £10, includes an excellent office software CD. The Blizzard IV's current recommended price with SCSI interface comes to £148. Now add £35 for the FPU for a total of £183. The software bundle from Power is excellent value, but the board has a lot to prove.

In operation, the Power board is fine. One ran happily throughout the World of Amiga Show when it showed TFX to the masses without any sign of falling over. AIBB tests showed it to be 12% slower than the Blizzard equivalent. FPU tests ran about 2% faster on the Viper, although both are over 100 times faster than an FPU-less system. In real terms they are fairly even.

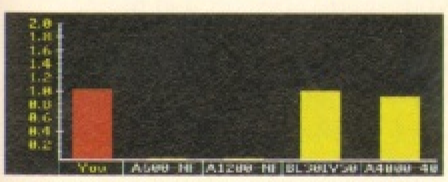
How about SCSI? The Blizzard is a DMA implementation, the Power version isn't. In practical terms this means that it is a little slower. Tests showed that it was perfectly happy to run a Zip drive at a normal 1Mb/sec, although ultra fast hard drive access may be beyond its reach. Dire warnings accompany the poor software installation, but the SCSI was easy to get working.

This is a good board. It isn't up to the standard of the Blizzard, but it wins on price, particularly given that UK prices on the Blizzard are set a little high.

If you could use the Wordworth 6 Office CD, then chuck in the tenner and you have a genuine 24 carat bargain. The Blizzard's speed benefits are minimal compared to stepping up to an '040 card, and as a complete package Viper does the job. ■

Andrew Korn





▲ Top is integer performance, bottom is FPU.

CD32 A500 A600 A1200 A1500 A2000 A3000 A4000 — **A1200**

88%

Magellan Opus 5

AMIGA SUPERSTAR

■ Price: £49.99 (5.0 upgrade £29.99) ■ Developer: GP Software ■ Supplier: Wizard ✆ 01322 527800

GP Software's latest version of the Amiga's favourite directory utility has arrived. Does Magellan have anything new to warrant an upgrade?

Since Directory Opus version 4 came out several years ago, it has remained the most popular commercial disk filing utility for the Amiga. However, the distinction between a simple filing utility and a general operating system add-on was blurred with the addition of the controversial version 5. On one hand the extra features were undeniably powerful, but many found it hard to get to grips with the multi 'lister' approach rather than the simple source/destination we all came to love from the past.

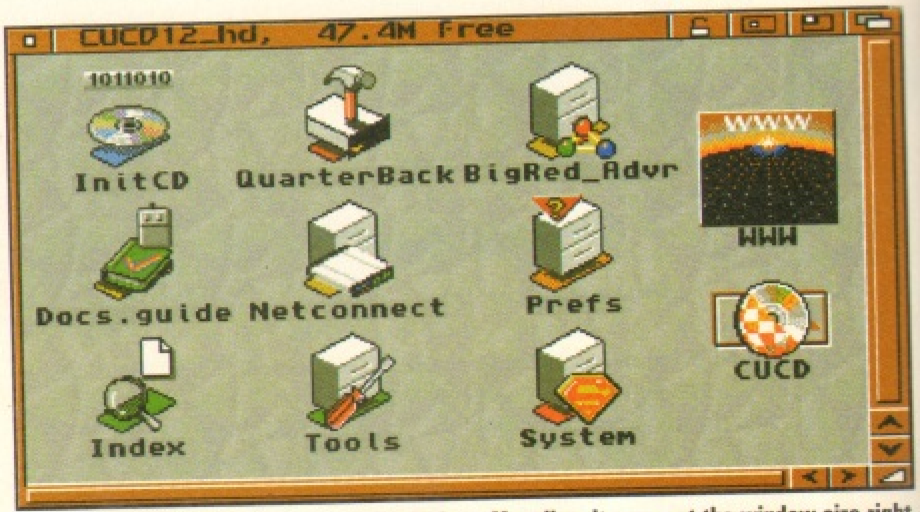
Every Amiga user should be familiar with standard 'two lister' directory utilities such as Opus 4, SID, Filer, Directory Works and so on – although some confusion surrounded the previous version of Opus 5. Designed from the outset to actually replace Workbench rather than run alongside it, at first glance Opus 5 looked just like Workbench. Only when you clicked on drives did the filenames appear just like an 'ordinary' directory utility. All of the standard options were there such as defining buttons, but with the added facility that separate button banks could be created and stuck anywhere on the screen and even moved around. The advantages, providing you could deal with the new system, was that you were never kept waiting. Unlike Workbench, it was possible to start off a copy or some other operation from one window and then carry on from another. In reality, Opus 5 had some teething problems with being a Workbench replacement – due mainly to conflicts in software that assumed Workbench was Workbench. The result was that it mostly needed to be run side by side with Workbench. Having two Workbench-like screens is pretty strange and ultimately, it is not a worthwhile replacement.

Re-incarnated

The latest incarnation that replaces the old version, is Opus 5 Magellan. This attempts to solve the Workbench replacement issues once and for all. Firstly, and this won fans at CU Amiga right away, Magellan will operate on standard Workbench icon positions. By pressing a hotkey, the active lister reverts to Workbench mode. You'll see icons again but now, if you have Workbench icon positions enabled, the window will snap to the real Workbench size. Great for anyone making floppies and CDs for use by people who don't have Opus, as we know that the icons will appear in the right locations. Previously we had to use Workbench to do this.

Also on the icons front, the long overdue Newicons support has been integrated into the package. Newicons caused some problems in the past but now that Opus supports them directly, they're actually better than Newicons under Workbench. It's now possible to individually set icons to having borders or not. Great for fixing MagicWB icons that look awful with transparency. Magellan also adds some really nifty functions for defining regions where icons can be located and the priority for sorting them. In this way you can organise where drive icons will appear and gain easy access.

Magellan has also added the great function of creating an icon for an internal Opus command, thereby, you can make a 'copy' icon on the desktop. Highlight the files you want and click on the copy icon and away it goes. You can imagine lots of uses for it. There's a new hidden option which allows the hiding of drive icons that are 'bad' so, for example, PC0: will disappear if an FFS disk is inserted and vice versa.

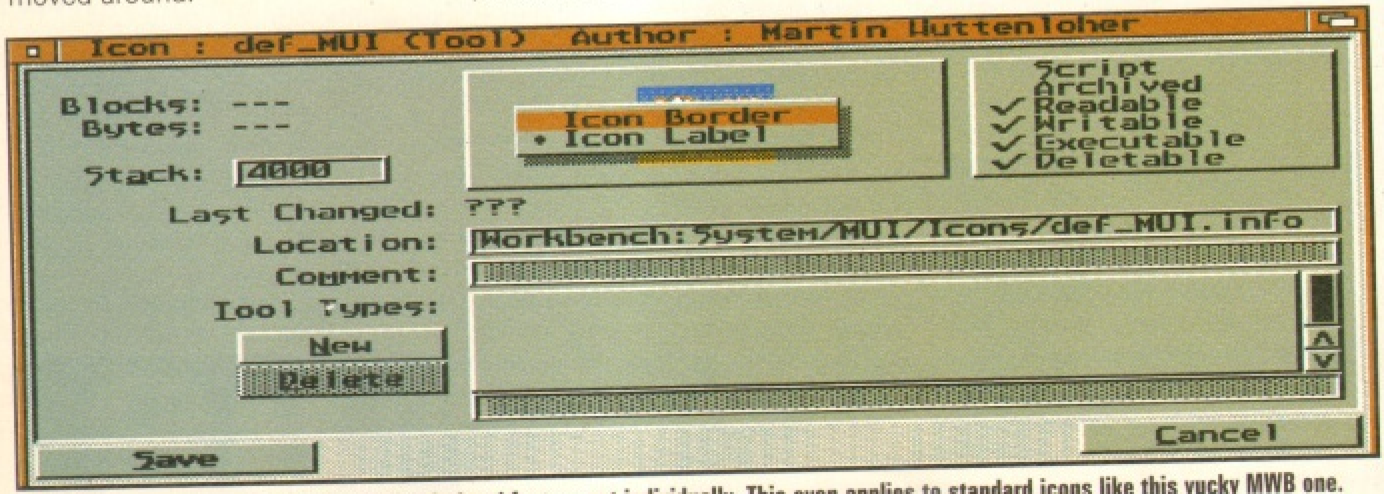


▲ Look at the lovely Newicons support in Opus Magellan, it even got the window size right.

FTP Net mania

For Net maniacs like myself, the second greatest change to Opus is the built-in FTP system. Previously I found this a little poor, being very slow and necessitating an edit to configuration files in order to change the settings. This area has received a lot of attention and Magellan now has extremely good FTP support. It also has a very nice address book complete with the preferences that you would expect to find in an FTP client and it's just as fast as any other FTP client because it works better being inside the Opus environment. Just click on a site in the address book and the files on that site will appear in a lister ready to use. It's now possible to use the FTP module instantly too by typing ftp:// into the string gadget at the bottom of a lister, a helpful addition.

The right mouse button pop-up menus (which appear right next to your mouse pointer a la Magic Menus) have seen some additions: Filetype specific options such as 'open' and 'open with', copy to df0:, ram: desktop and so on. To save on space, it's possible to define a button and then create



▲ Each icon may have the Newicons 'borderless' feature set individually. This even applies to standard icons like this yucky MWB one.



▲ Magellan in action. Here's some parallel copying and a Workbench icon mode window.

a bunch of 'start menus'. These will appear by right mouse clicking over the button so that pop-up menus appear. A great desktop space saving option.

Another new feature to Magellan is the Desktop Folder. Those familiar with Macintosh and PC operations will recognise this function. Files can be dragged onto the Opus desktop itself and they will be essentially moved or copied to a separate directory. It's even possible to chose the location of this directory and browse it directly from a lister. The default action is that when a file is dragged to the desktop, a pop-up menu appears asking if it is to be copied, moved or simply left out. It's even possible to change this to a default setting so that the pop-up menu never appears.

Small changes

There's a lot of other small changes to Magellan; an optional space gauge which shows how much space is used on the drive, a lister is viewing, icon label splitting for long names, CybergraphX support for general 24-bit display/speed and dragging of icons, more ARexx commands, improved compatibility with MUI, MCP (allegedly), new script system for disk insert notification and a re-written and faster text viewer.

Ultimately the Magellan version is a significant upgrade in all areas. However, if you were just using a file manager for day to day shovelling of files, then you can get by without it. Where Opus 5.x comes into its own is by spending a little time to find out what it can do for you. It's not easy, it takes a little time and some breaking of old habits. I should know – I still dive for the Shell more often than I should – but still my productivity has soared with the investment into Magellan's configuration that I have made.

With this version I can resolutely recommend Opus 5 Magellan as a viable Workbench replacement. Addressing the key issues of Workbench icon positions, Newicons support and a dozen other asked for features, has enhanced the system no end. If you're a power Amiga user who desires a complicated and powerful Amiga enhancement package, then Magellan is it. The core issue of Opus 5.x being a little radical with a steepish learning curve can be resolved if you first try out Opus 5.11, given away on the May issue of CU Amiga.

Development

There have been complaints on the upgrade price and some indication that users of Opus 5.5 are going to stay put because of the cost. This is a decision for you to make and not just on the individual features mentioned here. There is the fact however, that continued support of the product means continued development, which we hope will include a PowerPC version for the future.

If you're using Opus 5.11 you'd be insane not to upgrade now, as Magellan is much improved and has matured into the perfect Workbench replacement. I've tried not to trumpet this product too hard, as it may not be for you. However, if you're remotely willing to put in the effort, there is no doubt in my mind that an Amiga with Opus 5 Magellan is the most powerful and versatile computer and operating system combination in the world. It's fast, feature laden (more than you're ever likely to need), a programmer/script writers' haven and quite possibly the most highly developed item of software the Amiga has ever seen. CU Amiga SuperStar? Megastar more like.■

Mat Bettinson

OPUS 5 MAGELLAN

A500 · A500+ · A600 · A1200 · A1500 · A2000 · A3000 · A4000

system requirements: Workbench 2 and hard drive

ease of use 88%
GP Software try to make it easier but it is a complex package.

performance 97%
Now sports more features than Inspector gadget.

value for money 91%
Constantly updated and improved and as good value as ever.

OVERALL
The Amiga's most powerful Workbench replacement.
92%

PD Scene

Andrew Korn and a mixed bag of goodies this month that include; a Yahtzee clone, a brilliant Arkanoid game and some turkeys to avoid...

★★★★★	Totally blinding
★★★★☆	Good
★★★☆☆	Average
★★☆☆☆	Substandard
★☆☆☆☆	Oh dear

Yahtchoo

Dice game

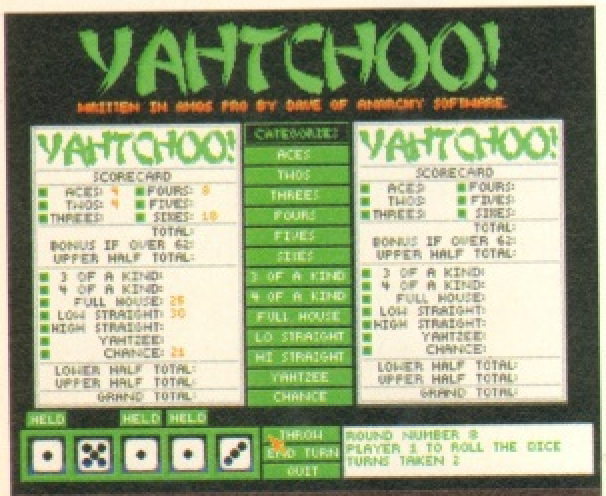
■ **Available from:** Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester M26 2SH

■ **Tel:** 0161 723 1638

■ **Price:** £1 plus 75p P&P per order.

There has certainly never been any shortage of Yahtzee games to chose from in the PD, but this AMOS Pro conversion is pretty well regarded as one of the better ones. The aim of this game is to achieve the highest score from what amounts to contract poker. You have to roll your five dice and score as high as possible while filling a scorecard with the highest collection of four and five of a kinds, runs, full houses twos, threes, fours, and so on. The winner is the player who completes their contract with the highest score. You can play against an opponent or just by yourself and try to achieve a high score.

Yahtchoo is a solid enough implementation. Well presented with no unnecessary complications and no particular omissions, this will satisfy anyone looking for a Yahtzee game. The only criticism I have is that it isn't OS friendly – an inevitable consequence of a program written in AMOS. ★★★★☆



Yahtchoo: now what does it remind you of?

Game of the Month

More Ants

Game collection

■ **Available from:** Underground PD, 54 Carmania Close, Shoeburyness, Essex SS3 9YZ.

■ **Tel:** 01702 295887

■ **Price:** £1.50 inc P&P.



Kick it

Ants. Someone thinks that garden creatures are the way to sell games. In an amazing throwback to game plots of yesteryear, you must recover the ten keys of whatsit which have been randomly buried around the garden. By blowing things up with rockets and bombs you can uncover the lost keys while simultaneously defending yourself against the relentless onslaught of various creeping insects. There's a high res background that's reminiscent of Worms, making the game feel familiar and friendly for a short while.

But wait a minute. What happened to game of the month? Ah, well that's where PD Underground come in. Instead of leaving a few hundred k of spare space on the disk, they have provided a couple of freebies; a pretty decent Arkanoid clone and a game called Skiddythings, which is a sort of Skidmarks on ice, where you and a challenger take each other on in a race to be the first snowman to cross the finishing line. This task is made more difficult by the fact that you bounce off the walls of the course like a sack of elastic bands in a rubber room factory. It's fast, insane, and hysterically funny.
★★★★☆

Miggybite issue 11

Disk magazine

■ **Available from:** Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester M26 2SH

■ **Tel:** 0161 723 1638

■ **Price:** £1 plus 75p P&P per order.

Hey, guess what? Viscorp have dropped out of the Amiga buyout deal, and a Canadian company called QuickPak are the current favourites. I guess if you download a disk mag right after publication rather than buying it from a PD library the news may be reasonably up to date. Never mind, there's plenty of fairly obscure news you probably won't have heard before anyway. There's a whole bunch of reviews, some commentary and the now obligatory humour selection, the star of which has to be the OJ Simpson trial in the style of Doctor Seuss.

The magazine is well presented with a tool bar at the bottom of the screen which allows easy navigation and includes useful extras like a find facility, a glossary of Amiga terms and a gadget to show associated pics – although the only pics in the mag are some screen shots for the review of the Dune games.

The best thing about mags of this type is that they are very interactive, meaning that the readers can get involved. This title is very lively, has a lot going on, and gives a real sense of a community of Amiga users. There's a lot to read and if you want I'm sure the editor would be glad for you to join in the writing too.
★★★★☆

British Manager

Footie management

■ **Available from:** Saddle Tramps PD, 1 Lower Mill Close, Goldthorpe, S63 9BY

■ **Tel:** 01709 888127

■ **Price:** £3.95 plus 50p P&P.

Eng-er-land! 2-0 against Poland, 2-0 against Italy, 1-0 against France, and now it looks like Champ Man 2 might finally be coming out on the Amiga. What more could football ask for? Well a decent footie management game from the realms of the PD/shareware/licenseware would be nice. So it's a shame that this one comes so close without really cutting it.

Even so, it would have done pretty well as a commercial release in the past. It has many things you look for in a footie game such as a transfer market, stadia, little animations of the goal-mouth action and the unique selling point of a combined British league (so you can give Rangers and Celtic more of a challenge by playing them in the third division). Unfortunately the lack of tactics and player stats leaves you with little to do.

My major beef about this game is that the player names are made up. Can anyone find signing J.Browne for Shadwell Town half as much fun as signing Juninho? Several large games companies have stopped using real names, worried that player's names may be copyrighted. For a licenseware author to be worried about the FA pursuing a highly dubious action against them seems unnecessary. I guess I'll wait for BritMan 2. ★★★☆☆



Blue Guitars



British Manager

Blue Guitars

Music medley

■ **Available from:** Underground PD, 54 Carmania Close, Shoeburyness, Essex SS3 9YZ.

■ **Tel:** 01702 295887

■ **Price:** £1.50 inc P&P.

You aren't expecting this to be any good are you? Everybody knows you can't get decent guitar mods. It's really quite simple. Take disk from PD library envelope. Hold with label pointing up and metal slidey thing pointing towards computer. Slide into disk drive slot on computer. Switch on computer. Let software boot up. Listen for 35 seconds. Remove disk from computer and feed to pet crocodile.

Well, this one is good so there's my review scuppered. The CD style mod player pops up and out rip those bluesy guitar riffs. There are four mods on this CD, three by Chaos / Syn, one by Xtd / mystic / TRSI. To my undying annoyance, they are all pretty decent mods. There isn't even one mediocre one for me to mock cruelly. Don't get this disk, just don't. You'll only encourage them. ★★★★☆



Yeti

Yeti

Game

■ **Available from:** Underground PD, 54 Carmania Close, Shoeburyness, SS3 9YZ.

■ **Tel:** 01702 295887

■ **Price:** £1.50 inc P&P.

Oh my God. I thought this sort of thing was covered by the Geneva convention. The Amiga is a multimedia machine capable of doing all sorts of impressive graphical feats. This does not mean that the Amiga should be producing games of a similar quality to a Spectrum programmer with no artistic talent but who can throw in a few extra colours.

You have to guide a little elf in a Santa cap around a network of ladders and platforms whilst avoiding snowballs in a quest to rescue his kidnapped love. Yes – it's a particularly crude version of Donkey Kong. Yetis are also known as abominable snowmen. In this case the snowman bit is superfluous. ★☆☆☆☆

A Poke in the Eye

Demo

■ **Available from:** Underground PD, 54 Carmania Close, Shoeburyness, Essex SS3 9YZ.

■ **Tel:** 01702 295887

■ **Price:** £1.50 inc. P&P.

There are colours. They swirl. There are lighting effects. Silhouettes of dancers. And music. There is a tunnelly sort of thing. Seen it! A Poke in the Eye is a perfectly reasonable demo with a distinctly three year old feeling to it made up of standard VideoTracker effects.These days you expect to see rotating texture mapped, goraud shaded, light sourced blobs, but you won't see them here. ★★☆☆☆



A Poke in the Eye

Quatermass Experiment

Disk mag

■ **Available from:** Saddle Tramps PD, 1 Lower Mill Close, Goldthorpe, Rotherham, S63 9BY

■ **Tel:** 01709 888127

■ **Price:** 80p plus 50p P&P

Another disk mag although this one is rather different to the normal Amiga oriented affairs. Although there is one article about an Amiga magazine (not us!) selling their subscribers list to a PC services company, the content consists mainly of science fiction short stories.

The opening sequence is reminiscent of the start of Star Wars – the most intriguing and amusing start to a diskmag I have seen. It made me want to find out more. The front end follows the same space theme with all the gadgets in the shape of planets, so that the Sun is 'quit' and Jupiter is 'print document'.

The stories are a pretty variable bunch, par for the course for amateur fiction – some is pretty good, some is pretty dire. But there's plenty of stuff to read here, and if you are a bit of an SF fan, you're bound to find something you like. There is some decidedly adult content in here, so if you are easily offended be careful. There is a censor button which 'converts' certain words with a couple of asterisks so that s**t becomes s**t. Hey, we seem to have one of those at CU too! ★★★★☆

PD Utilities

As you get out your new C compiler and start to program utilities, don't forget to send them to Andrew Korn. He needs them after seeing this month's poor collection!

★★★★★	**Totally blinding**
★★★★☆	**Good**
★★★☆☆	**Average**
★★☆☆☆	**Substandard**
★☆☆☆☆	**Oh dear**

ACI Workdisk
Utilities

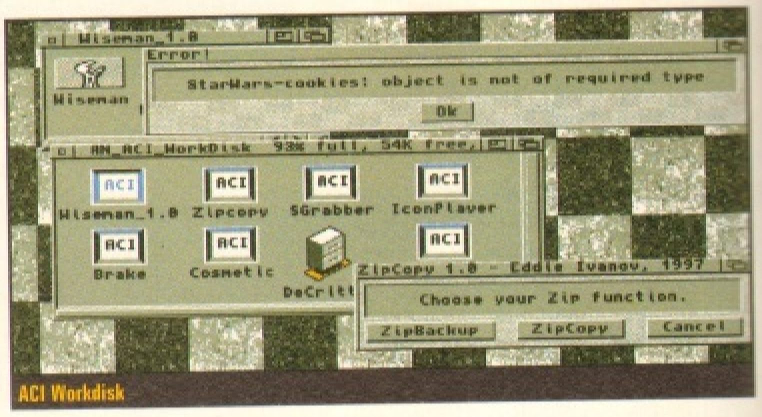
■ Available from: Roberta Smith PD, 190 Falloden Way, Hampstead Garden Suburb, London NW11 6JE.

■ Tel: 0181 455 1626

■ Price: 90p plus 50p P&P

I just don't get it. Unless this really is some kind of of a poor joke... It's just another compilation of utilities, but one which seems to have forgotten that the word utilities should fundamentally imply some form of usefulness. This lot is almost useless. So there are things like ZipCopy, an amazing utility which allows you to copy files onto Zips. But then, you can do this with Zips anyway! Then there is Break, software which slows down your Amiga. Right. PPC? Nah, these 14Mhz '020s go too fast anyway. Wiseman, anyone? A Fortune Cookie program which can't recognise the supplied quotations file. There are a couple of things which might be OK but they just managed to crash with every Amiga I tried them on. Other programs were just poor versions of tired, old utilities that you can find on just about every utilities disk.

OK, not all of it is quite that bad. Decrittus is an Italian file encrypter/decrypter which looks reasonable, and AmigaT is a hardware tester command which does the job perfectly, although has a lot less to it than something like SysInfo. There are a lot of utilities compilations out there, and almost all of them are better than this. ★☆☆☆☆



ACI Workdisk

AnswerBack
Answerphone mods

■ Available from: Underground PD, 54 Carmania Close, Shoeburyness, Essex SS3 9YZ.

■ Tel: 01702 295887

■ Price: £1.50 per disk, P&P inclusive.

Here's a strange one: a disk for telephone answering machines. You've probably seen tapes on sale offering pre-recorded answerphone messages. If you don't have the imagination, mimicry skills and sound processing equipment to produce something particularly original/cheesy, you can borrow someone else's. Why not do the same thing on disk?

GFXLab24
24-bit image processing

■ Available from: PD Power, 15 Lovetot Avenue, Aston, Sheffield, S26 2BQ

■ Tel:: 01374 150972.

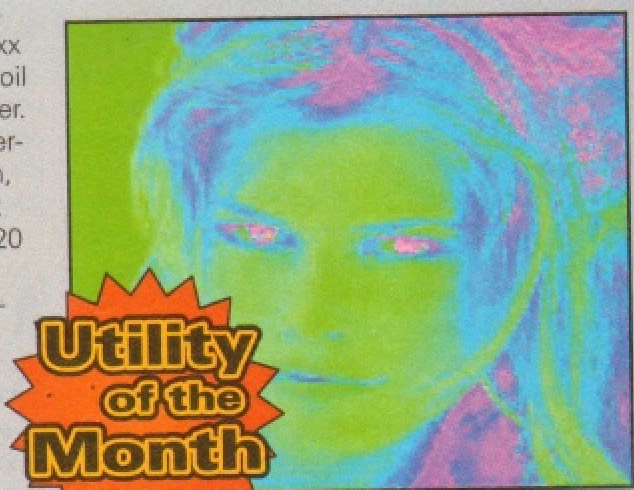
■ Price: 50p per disk & 75p P&P.

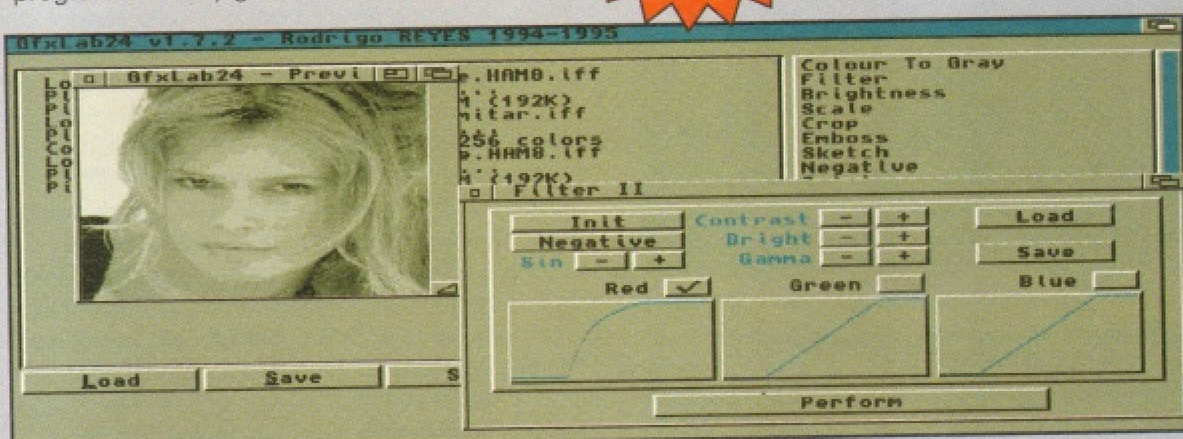
Oh joy! GFXLab24 is not new, but it's the best utility disk sent by a library this month.

As you can guess from the name, GFXLab 24 is a 24-bit image processing tool. It can handle the usual everyday functions such as converting file formats, but also has a very good range of operators too. You can open up a scalable black and white preview window to get an immediate idea of what is going on, and there is also an ARexx port.

The range of processes is not up to the power of ImageFX 2.6, but they are good none the less. There are a few special effect filters, but most are designed for cleanups and balancing control. Special effects can be achieved as can more complex things by using multiple operators. Via the ARexx port you can apply series effects to an image to have a reproducible result. A couple of ARexx examples are on the disk; one produces an oil painting effect, the other is a catalogue maker.

This version is a bit lacking. Of the two versions of GFXLab24, this is a standard edition, the other's a slightly faster '020 version. Ask PD Underground for that one if you've an '020 or better processor. GFXLab covers all the major image formats, PNGs and GIFs included, has pseudo virtual memory, and runs at a pretty decent whack. This is one of the best pieces of freeware available, and if you missed out on the cover mounted Image Studio (CU Amiga May'97), then this program is a very good stand in. ★★☆☆☆





Continued overleaf ▶▶▶

AMIGA

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Fasten your seat belts and be prepared for an experience like you've never seen before on your Amiga. Flyin' High is here and it takes you to a new dimension of 3D-Racing Games. Step on the gas and race over fully textured and absolutely crazy tracks, on asphalt, mud, field paths and slippery ice.

On an 68030 Amiga the games great fun. Playing with 4 players on a 68060 is really impressive.

A special Track Construction Kit will be released in the future!

System-requirements: Amiga, MC68020, AGA-Chipset, 4MB Fastram, Harddisk. Fun starts at MC68030 running with 30MHz. 4player adaptor supported.

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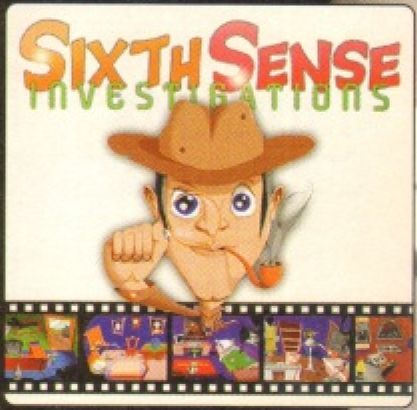




"Sixth sense investigations" is a new graphics adventure for the Amiga, based on the classic LucasArts style games. The base storyboard tells of a crazy young guy who has the ability to communicate with the spirit of a sarcastic man. A friend, who thinks of himself as a detective, profits from the pychic abilities of his freind - the crazy psychic guy, by using his skills to solve the most bizarre problems of the rich. *Naturally*, only if well paid.

The lack of control that the detective has over the crazy psychic guy, and the fact that the psychic guy has little control over the spirit, generates many crazy, funny situations which doesn't help them to make much money.

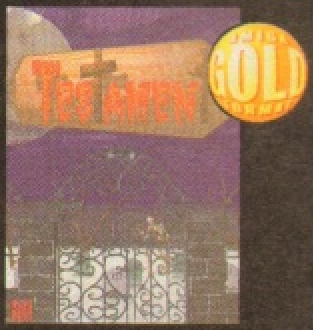




Super-smooth AGA 256 colour cartoon graphics, full charactor voice-overs, 3 Worlds with 32 locations, Intro film sequences. Requires A1200/A4000 etc 2MB ram, CD-ROM drive.

Amiga CD : £29.99

Testament



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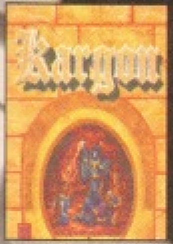
Rated 92% £19.99



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Please make cheques payable to ISLONA - *Islona* is a part of the Epic Marketing Group of Companies.



Answerback: it even gives you a nice CD player to listen to the cheesy messages.

There are four sampled messages on the disk, probably sampled from one of the aforementioned tapes without permission, but there you go. One offers a voicemail system for the afterlife, one a Bush impersonator asking for 'no new faxes', one a cheesy chorus and the last a fairly straight message except it's read by someone pretending to be Michael Bolton.

These kind of things were very popular in the early years of the answerphone, but time has passed since those innocent days. People have noticed that novelty phone messages are not a novelty any more. This disk does the job it sets out to, and appeals in a sort of retro early eighties sort of way. Buy it if you think filofaxes are pretty damn cool. ★★★★★

HardMods

Patch programs

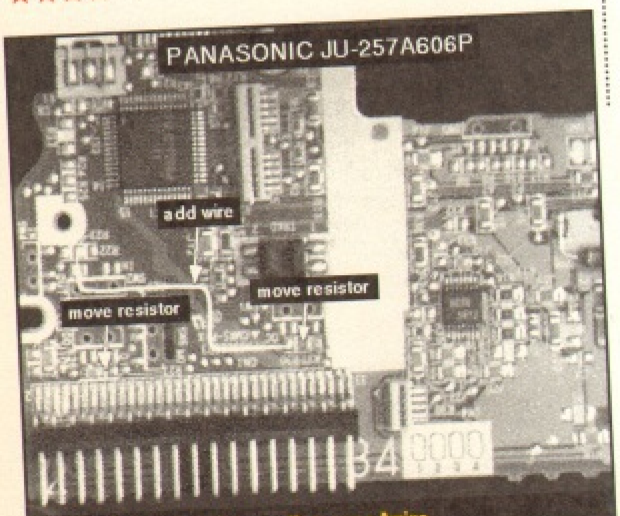
■ **Available from:** Underground PD, 54 Carmania Close, Shoeburyness, Essex SS3 9YZ.

■ **Tel:** 01702 295887

■ **Price:** £1.50 including P&P

This disk's files are DIY modifications, mostly downloaded from the Aminet's hard/hacks directory. They vary in difficulty but show how to fix the Escom A1200 floppy flaw, connect PC gamepads or make MIDI connectors. The easiest job is a modification to the speaker inside an A4000 involving adding a simple little cardboard baffle. The most complex is probably the DIY sound sampler – still pretty easy for anyone handy with soldering irons.

The topicality of some of these files is questionable – the audio filter fix for A1000s, and fitting a 3.5" hard drive aren't the drama they were once thought to be. But there's a A1200 tower conversion guide – about as topical as subjects get at the moment, judging by the response to our articles on the subject, and there are still plenty of people who would like their Escom A1200 floppy drives working again. A bit specialised, but it does the job. ★★★★★



Hard Mods: how to add bits easily to you r Amiga.

The Computer Reference Guide

Reference guide

■ **Available from:** Robert Hall, 7 laurel Avenue, Fawndon, Newcastle upon Tyne, NE3 2RP.

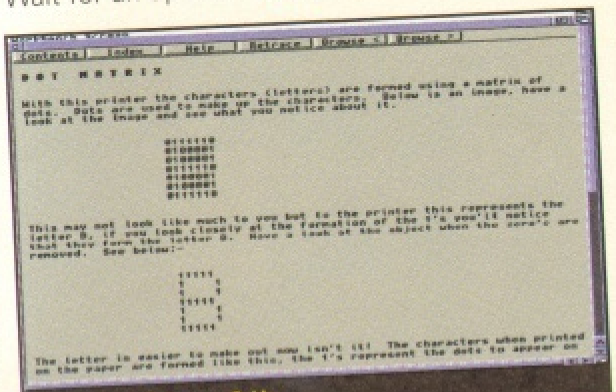
■ **Price:** £3.50 plus 50p P&P

Ah... A comprehensive guide to computing. What a good idea. Some kind of easy reference tome which would cover all sorts of questions about computer hardware, software, or even things like the legal issues of shareware and how CDs work. Explanations of the terminology even. It could be presented as a nice easy AmigaGuide. And wouldn't it be good if it covered some other platforms too, and really told people what they need to know about the technology of the modern world?

The problem with this attempt is that author Robert Hall doesn't know much about the subject he is covering. He says, for instance, that 1k is 1024 bytes on PCs, and might be the same on Amigas but he isn't sure. He tells us that EDO memory is never seen with Pentium processors because the two are incompatible – I say just try buying a Pentium computer without EDO memory. Errors like this litter the document. To be a good reference guide, you have to be able to trust the information in it. In this one you can't.

Presentation is something that surely can't be mucked up in an AmigaGuide text document. Wrong. For some bizarre reason Robert Hall has used a Nucleus menu system designed front end, which offers you the option to read the guide or not. An icon for the guide and Multiview would have sufficed and been ten times simpler.

To give this title some credit, the software section is quite reasonable, and if you want to know what the difference is between a laser and a bubblejet printer, this will tell you, along with chain, barrel, thermal, and liquid crystal shutter printers too. Typically it omits the rather popular dye sublimation type. So, if you treat the facts with caution, it does have a lot of depth. If Robert got someone to read for technical errors, this would be rather good. Wait for an update. ★★★★★



The Computer Reference Guide

Best of the Aminet



So the new, regular Aminet column vanished last month. Ahem. Now we're back, and there's plenty more great stuff on the world's biggest archive of freely distributable software. To kick us off this month, let me point you in the direction of **gfx/aga/sork.lha** (317k) where you will find the best Amiga voxel engine I have yet come across. It is very fast, has all sorts of rendering modes, fly and drive modes, the works. Looks great too. Apparently the author used our cover disk of Vista Lite to generate the landscapes, too. If only there was a game in there! Talking of games, **misc/emu/DarkNESs.lha** (23k), claims to be an NES emulator which runs 70% of NES games. SWOS fan? Go to **game/data** and look at **swosafr.lha** (10k), **swosaus.lha** (2k), **swosbra.lha** (7k), **swosusa.lha** (3k), **swosesp.lha** (13k) for some updates.

If you find your modem is always covered with disks and papers, maybe you should download **comm/misc/modemd.lha** (29k) which displays the status lights on your Workbench. You can do this while listening to a pretty odd piece of digeridoo trance you'll find at **mods/med/bc-goann.lha**. If you would prefer something to read, you might want a look at **docs/mags/aiov1.lha** (13k) a small but well formed Amigaguide monthly mag with views, news and reviews (some nicked from CU, bad boys, ask first).

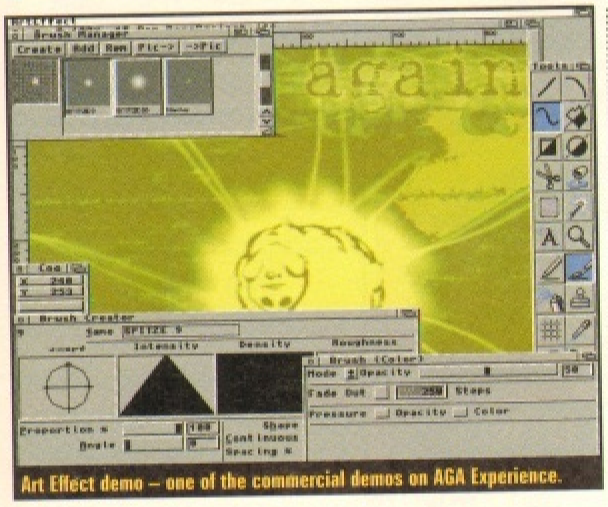
Eye candy time

Eye candy doesn't come a lot sweeter than Sweet, by French demo team Silicon. Go to **demo/aga/slc.sweet.lha** (598k) for a tunnel and lighting effects demo with a sense of humour. Men in Black after you? You've obviously spent too much time looking at **pix/trace/abduction.lha** (94k). Sticking to a science fiction theme, check out **pix/trace/dune.jpg** (73k) for an excellent render of a giant Sandworm from Dune rendered by Amiga stalwart Tobias Richter. Ever lost something on your hard drive? Of course you have. Pity the Amiga doesn't have a find facility as good as the Macintosh built in find file. It does now thanks to **util/wb/macfind.lha** (77k).

Remember – if you don't have Internet access all this software is still available. Many PD libraries offer an Aminet download service, so try ringing your favourite. Any PD libraries offering this service who want to be listed here, contact us!

CD-ROM Scene

There's such a lot of stuff that you can get onto a CD-ROM, but it's not always great. Andrew Korn cherry picks this month's crop.



Art Effect demo – one of the commercial demos on AGA Experience.

AGA Experience volume 3

■ Available from: Sadeness Software, 13 Russel Terrace, Mundesley, Norfolk, NR11 8LJ

■ Tel: 01263 722169

■ Price: £14.95

Anthology CDs like this are great things, but presentation needs to be neat and different. Some CDs will present you with their own menu system, others go for the 'properly configured Workbench front end' approach. Aminet disks follow the former path, CUCDs follow the latter. Sadeness have found a middle ground with a perfectly reasonable Magic WB based Workbench front end with icons which point to a file displayer when necessary, and include a guide in the form of a very cleverly devised HTML document which runs from the demo version of Aweb included.

The HTML index page has many of the pictures in 'click to view full size' galleries and links to various online magazines. There's even a click to play mod collection. Sadeness have also interestingly used Aweb's internal shell system to activate demos from its demo collection. This feature unfortunately doesn't work, but it's a nice idea. The demos can still be activated through Workbench which is a much more sensible way of doing it as most demos require a lot of free Chip RAM, not something you will necessarily have with a browser running, and a large number don't quit, meaning that you have to reboot after viewing. Loading a web browser and using an HTML interface isn't the quickest way to run a single program.

In terms of contents, this disk is very much what we have come to expect. In other words there is plenty of everything. There is a strong emphasis on entertainment on this disc with a massive 222Mb of demos, 90Mb of games and over 80Mb of pics and animations. The utilities section doesn't suffer either with an excellent selection of shareware and PD utilities and a very good collection of commercial software demos. The docs section is full of disk mags including the excellent Amiga Report from CU Amiga's US correspondent Jason Compton. All in all, this really is one of the best discs of its type. **91%**



AGA Experience comes with an HTML front end. Here's the art gallery.

Epic Collection 3

■ Available from: Epic Marketing, 43 Akers Way, Swindon, Wilts, SN2 2NF

■ Tel: 0500 131486

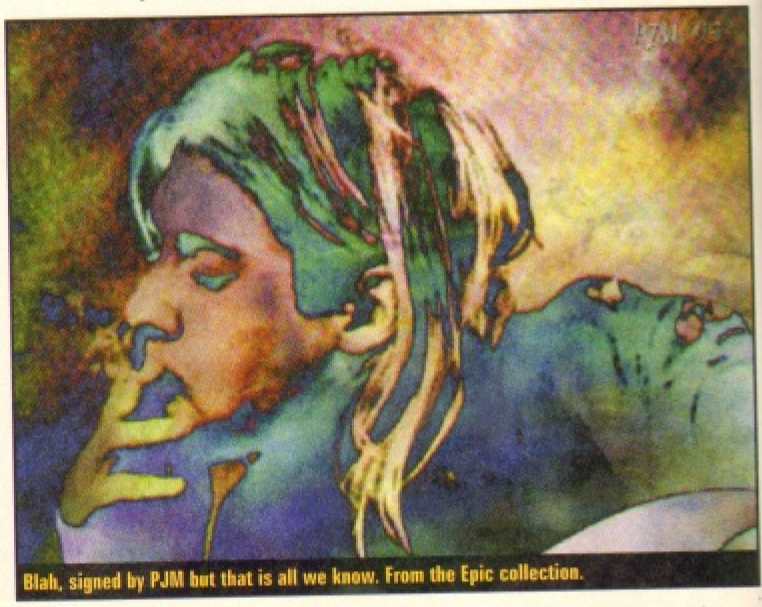
■ Price: £19.99

Anyone would think there was some kind of conspiracy at work here. Epic and Sadeness both producing number three in their respective series of anthology discs at the same time? This has just got to be a set up. Or conspiracy has to be suspected, especially when you consider how little overlap there is between the two discs. Epic has no polished HTML front end, but the Workbench front end is reasonably configured. There's no click to activate ease of use either, but there is plenty of accessibility through well placed software. Our cover CDs, for example, let you view a picture by clicking on it. Epic has an icon for VT which calls a file requester to select the files locally. This is simpler but works perfectly well.

The spread of software here is very general so there's a lot to keep any Amiga user interested. The biggest collection on this disk is the music drawer which contains over 200Mb of assorted mods and samples. The mods contain a lot of material which is unlikely to turn up on many other CDs, if only because there are a lot of blatant breaches of copyright. The pics collection is sizable too, and presented by subject with index pages. This makes them very easy to browse although Epic, unlike Sadeness, has not retained text files with pics where supplied. Thus credits for pics are missing, giving the impression that Epic have just dumped any picture on, regardless of credit for creation.

The Epic Collection 3 is to a large extent shovelware – an inevitable result of the approach Epic have taken. Most of this disk appears to be in sampler mode. Thus, there are small (well relatively small, this is a CD) selections of what you might find in an Epic sounds CD, an Epic Clipart CD, an Epic 3D objects CD and so on.

If you collect CDs like this, you probably need something more to keep your interest up. The only thing which makes this CD stand out from the crowd is the educational database, which consists of over 100 DMS disks of educational software with a click to expand interface. If you are always looking for educational software you'll find this an invaluable resource, if not, then it has nothing to make it stand out from similar collections. **82%**



Blah, signed by PJM but that is all we know. From the Epic collection.

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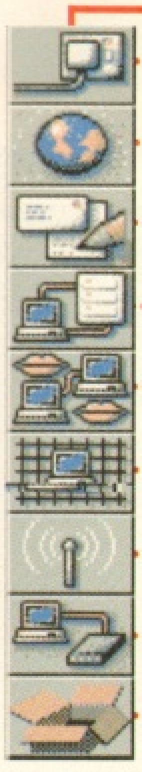
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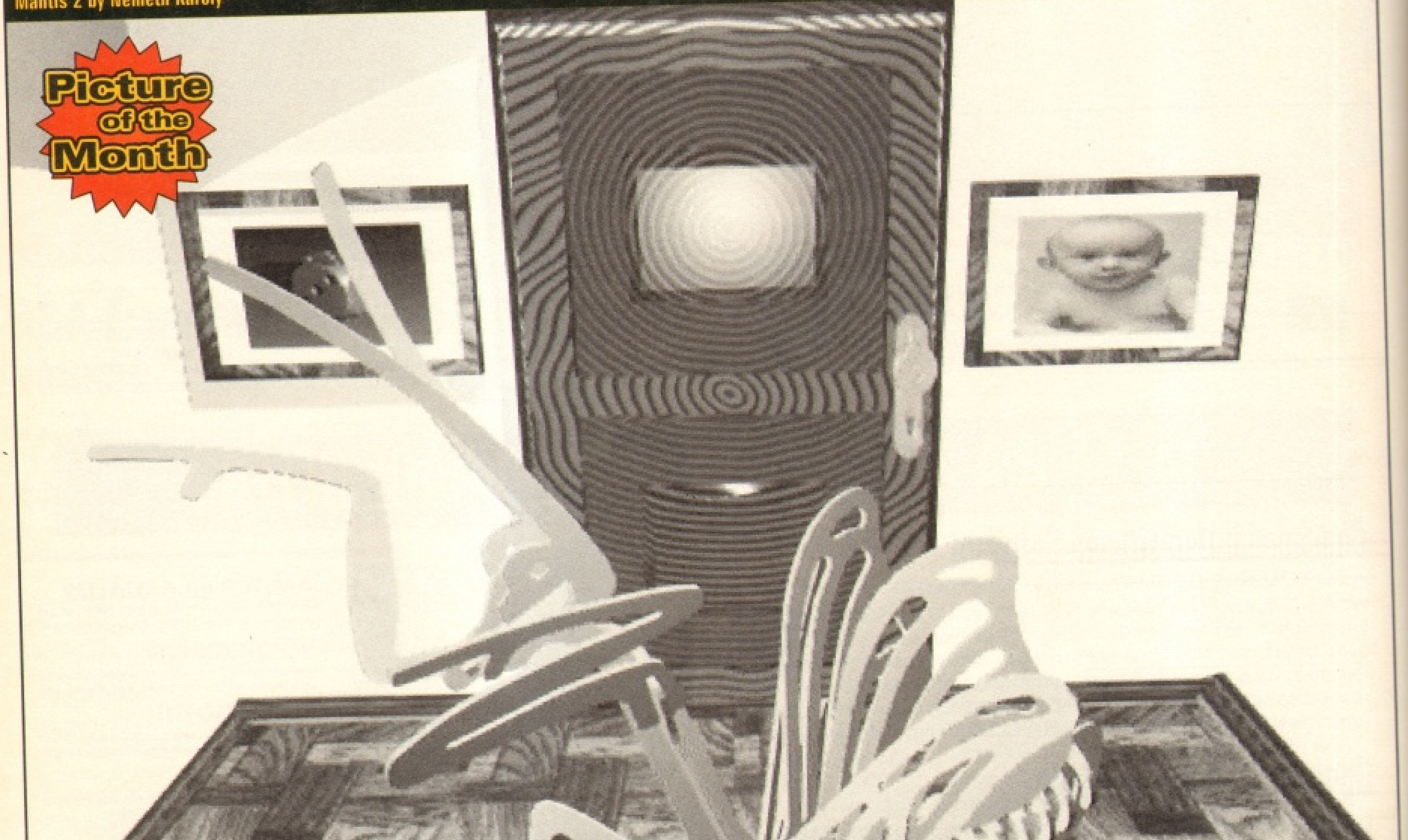
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Mantis 2 by Neméth Károly



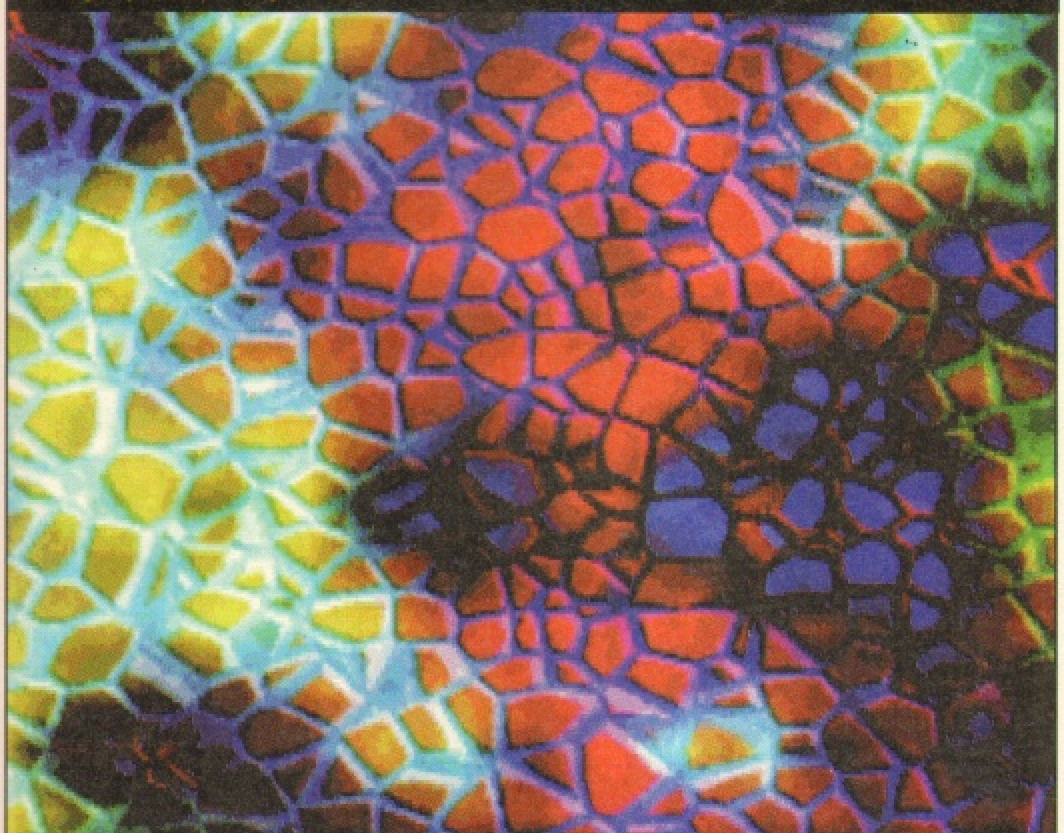
This black and white image is all about flat shapes and 3 dimensional spaces. It is heavily reminiscent of M.C. Escher, but Hungarian Neméth, the original creator of this fine picture, might point to the work of his revered countryman Moholy-Nàgy, whose use of contrasting curves and hard edges is also similar.

Suicide by Trevor Hunter



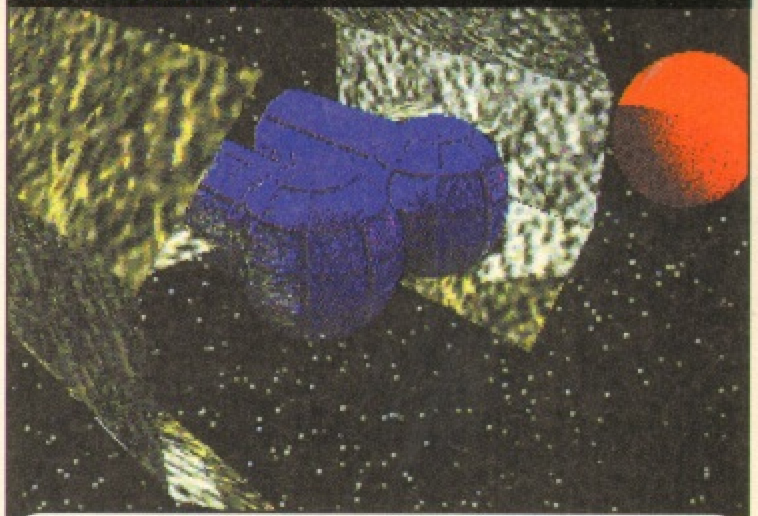
Look closely at the objects in this disturbing Imagine render and you will notice that they float just above the table surface, lending this image an almost surrealist nightmare quality. Strong stuff.

Strange by Freaky (Philip Price)



Is it a Workbench backdrop or something from a 70's record sleeve? This gives a new meaning to crazy paving. Don't step on the cracks or you'll end up in the Twilight Zone.

TIE Bomber by Tom Allen



13 year old Tom Allen rendered this Star Wars inspired pic in Cinema 4D 2. Needs work on the textures, Tom, but the composition is excellent.

Animal by Freaky (Philip Price)



Part human, part fox, all psychedelic. Another example of what Ppaint, Image Studio, Photogenics and Dpaint can do in the hands of this strange individual.

Bottle 3 by Zoltan Hunt



Zoltan uses Lightwave and ImageFX to give his realist renders that moody edge.

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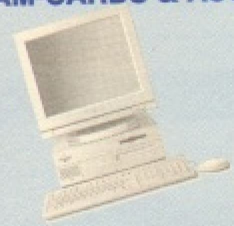
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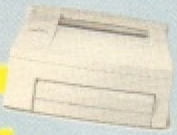
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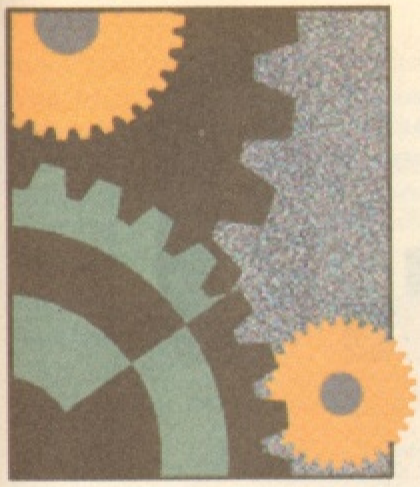
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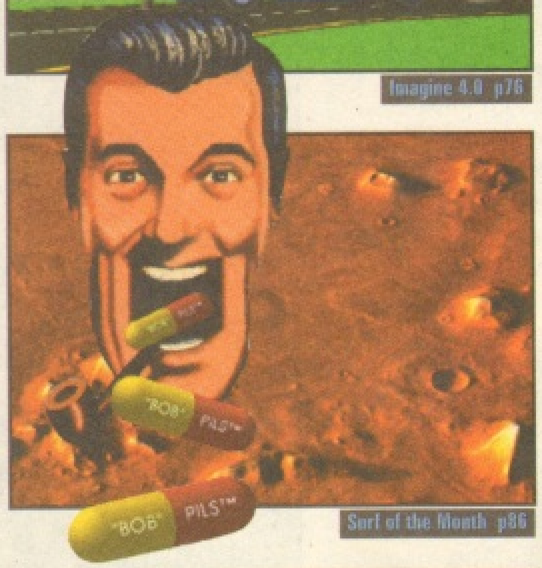
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Imagine 4.0 p76



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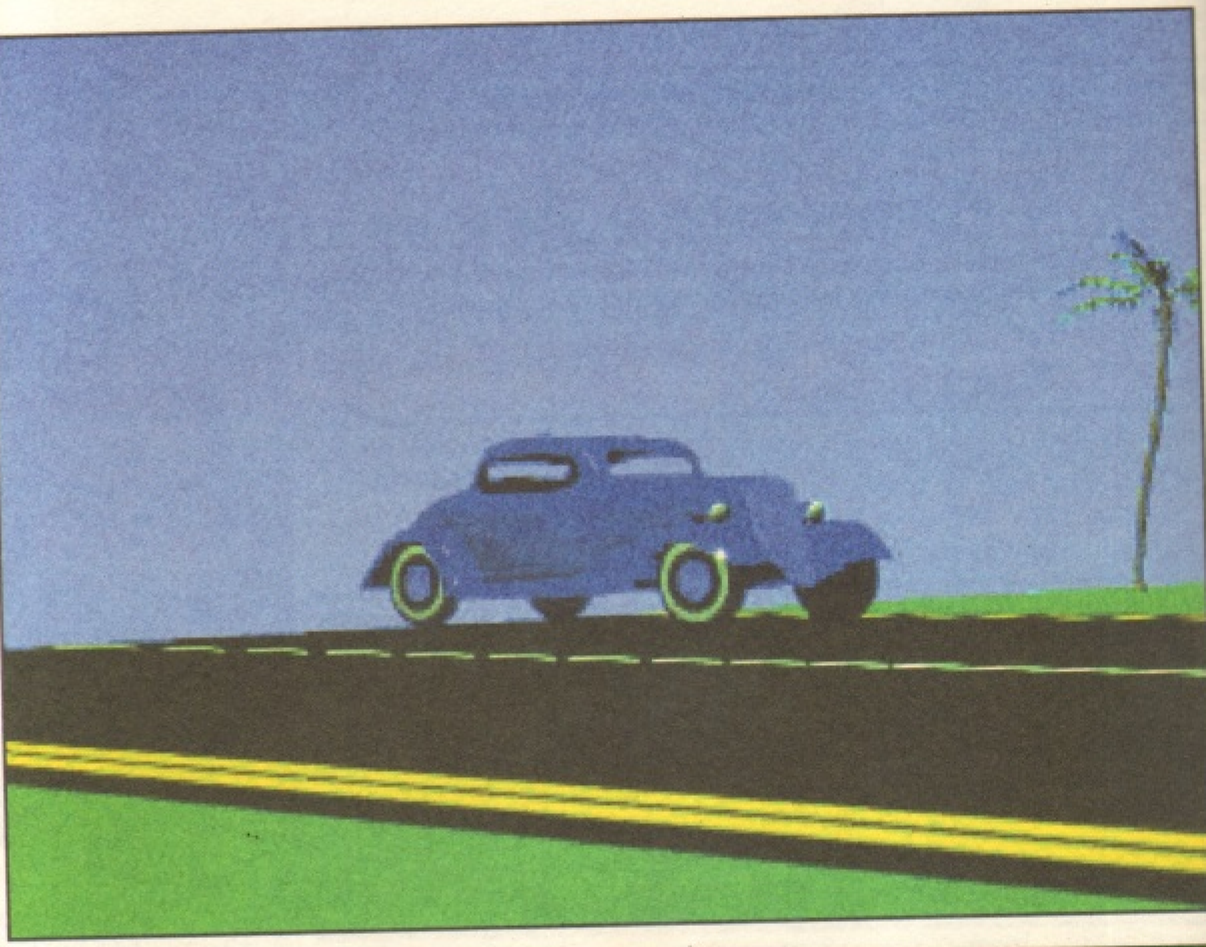
Desktop Publishing p88

Regulars

Imagine 4.0

PART 8

More advanced animation tips and tricks, including avoiding any of those embarrassing skidmarks!



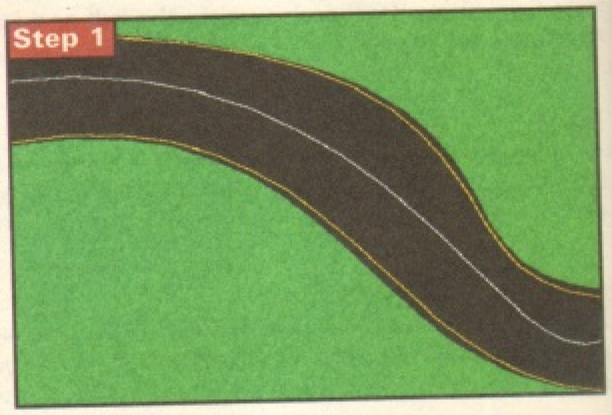
Last month we looked at making an object follow a path. This is quite easily done, using the Align time bar in the Action Editor. We cheated quite a bit, because the object in question was a sphere, and therefore it didn't matter which way up the sphere was pointing. However, if you try and use this technique to make an aeroplane follow a complicated flightpath, or to make a car race around a track, then you will have discovered it's not quite as obvious as it seems.

Here's an example of the problem. We have a road object (created in a paint package as a simple drawing, and mapped to a plane) and a car which we want to move along the road. If the road was straight and the car was moving in a perfectly straight line everything would stay simple and we wouldn't have a problem. We could set the start and end frames and just let the car get on with it. However, you can see an example of the car's motion in the overhead view of the animation, which runs in the pictures one to four, directly below.

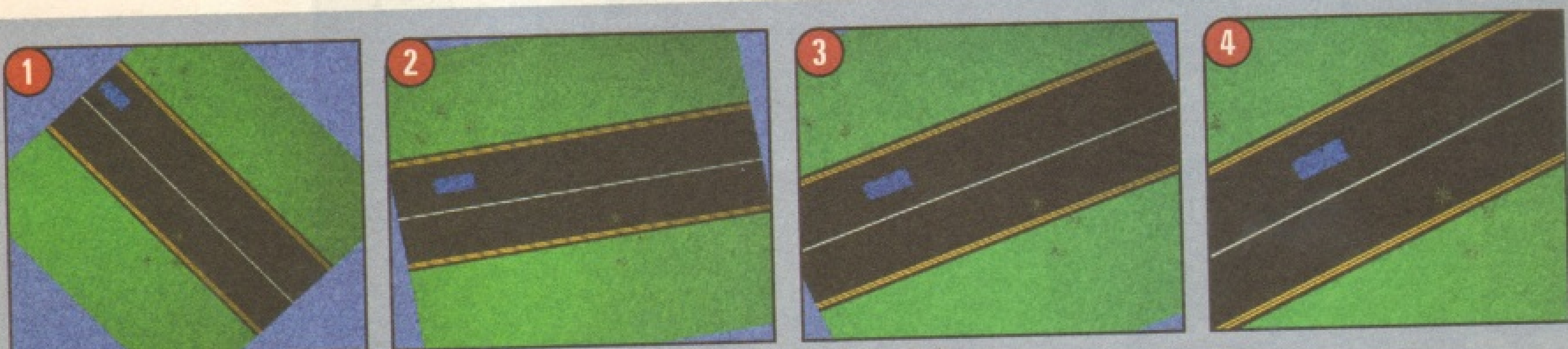
This method is fine in plenty of cases, and you can even make the car accelerate by various amounts or brake by altering the speed up and slow down times from the Action editor. When you move the camera down to ground level and make it track the car object, you can get a very pleasing and professional looking effect, as shown at the far right on page 77.

However, let's move on to a more advanced example. This time let's put a bend in the road. This present two separate problems, but let's look at the more obvious of the two: how do we make the car move around the bend? We could potentially create lots of tween points, however, this would be very time consuming and it probably still wouldn't look right.

We therefore use a Path object – a smooth curve which we can tweak until it's in exactly the right position at every point. Our car object can then follow the path and keep between the edges of the road. Here's how to achieve this effect in five easy stages…

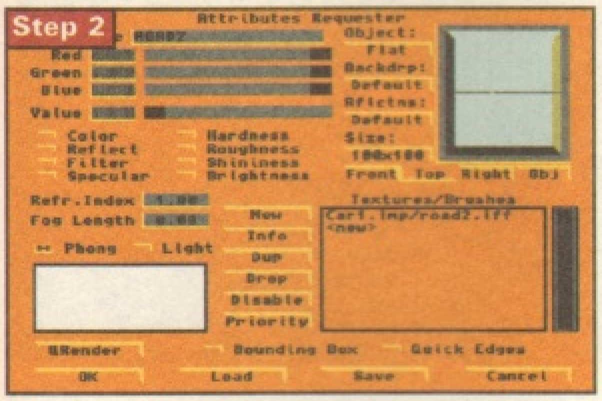


▲ As shown above, create a bitmap for the

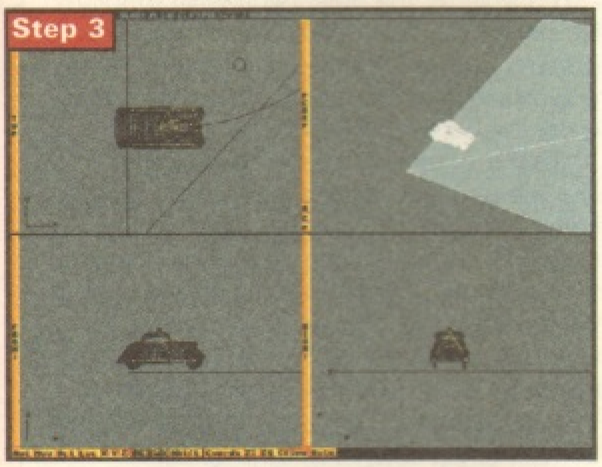


▲ When an object moves in a straight line, we only need to set the start and end positions, and let Imagine do the rest.

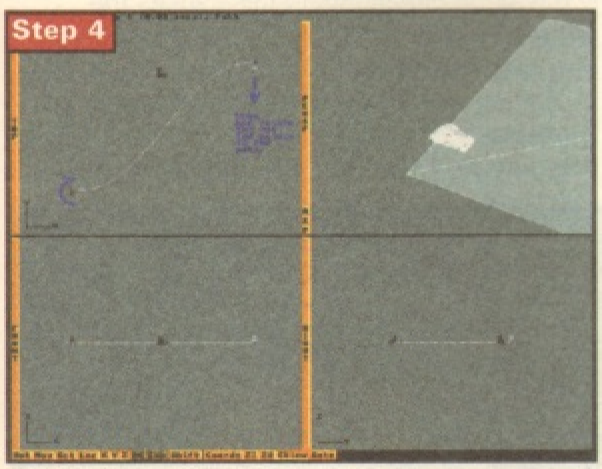
road. Use your favourite paint program, or if you are a little more adventurous, scan or digitise a suitable picture of a real section of road. Here's one which I obviously spent hours drawing. You'll be surprised how well a simple drawing like this will look like when it becomes three dimensional.



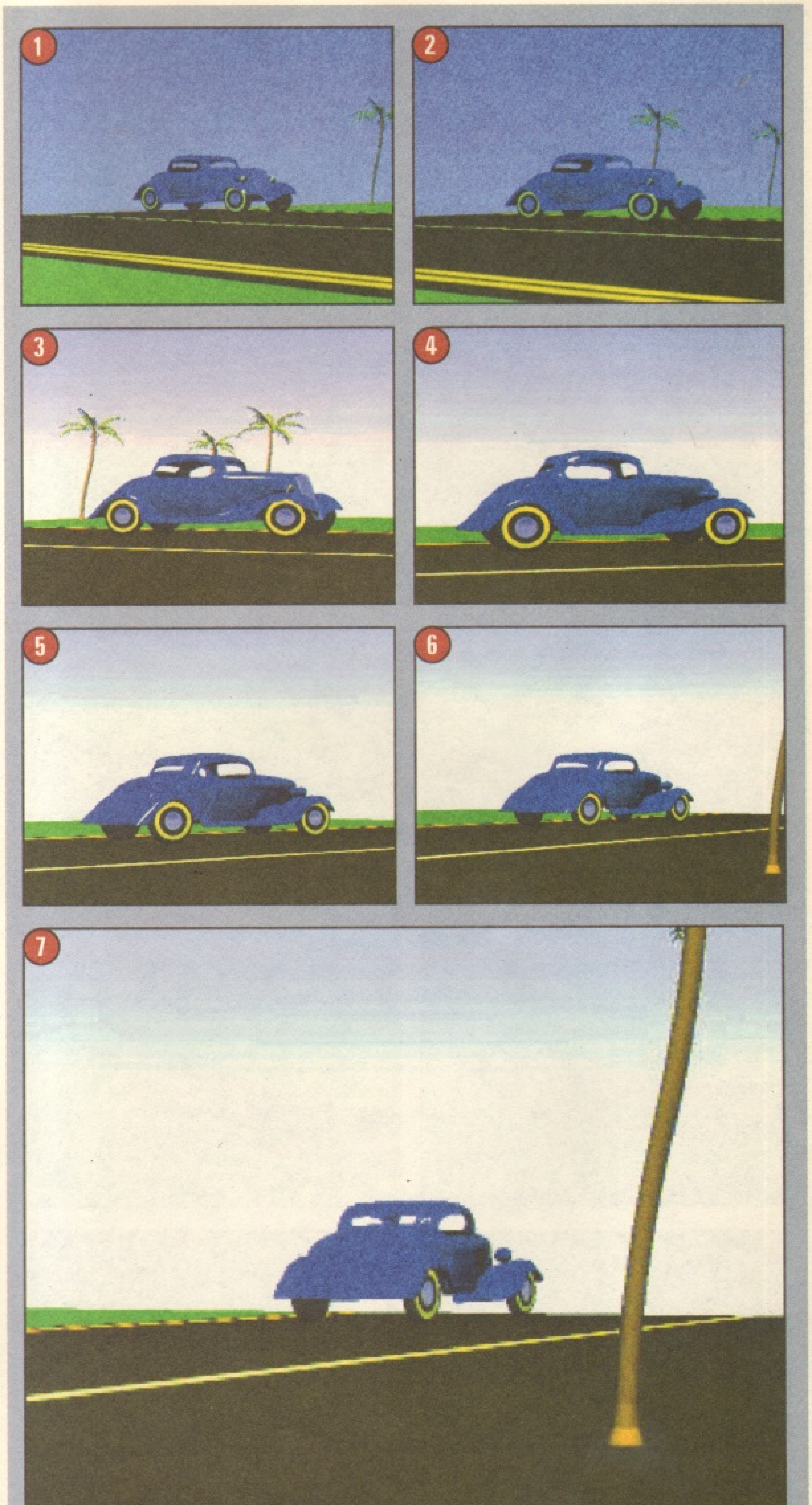
▲ Create an object from the road image. The best thing to do is to create a plane with the same dimensions as the drawing itself, and then use the brush mapping texture to apply it. The plane will now be your section of road, ready to use in your scene.



▲ Load and scale all the objects in the Stage Editor. You will probably need to adjust the size of the car and the road objects to match, and if you want to add any buildings or trees you'll need to scale these as well. Remember to position your camera at a good vantage point and to add a light source object.

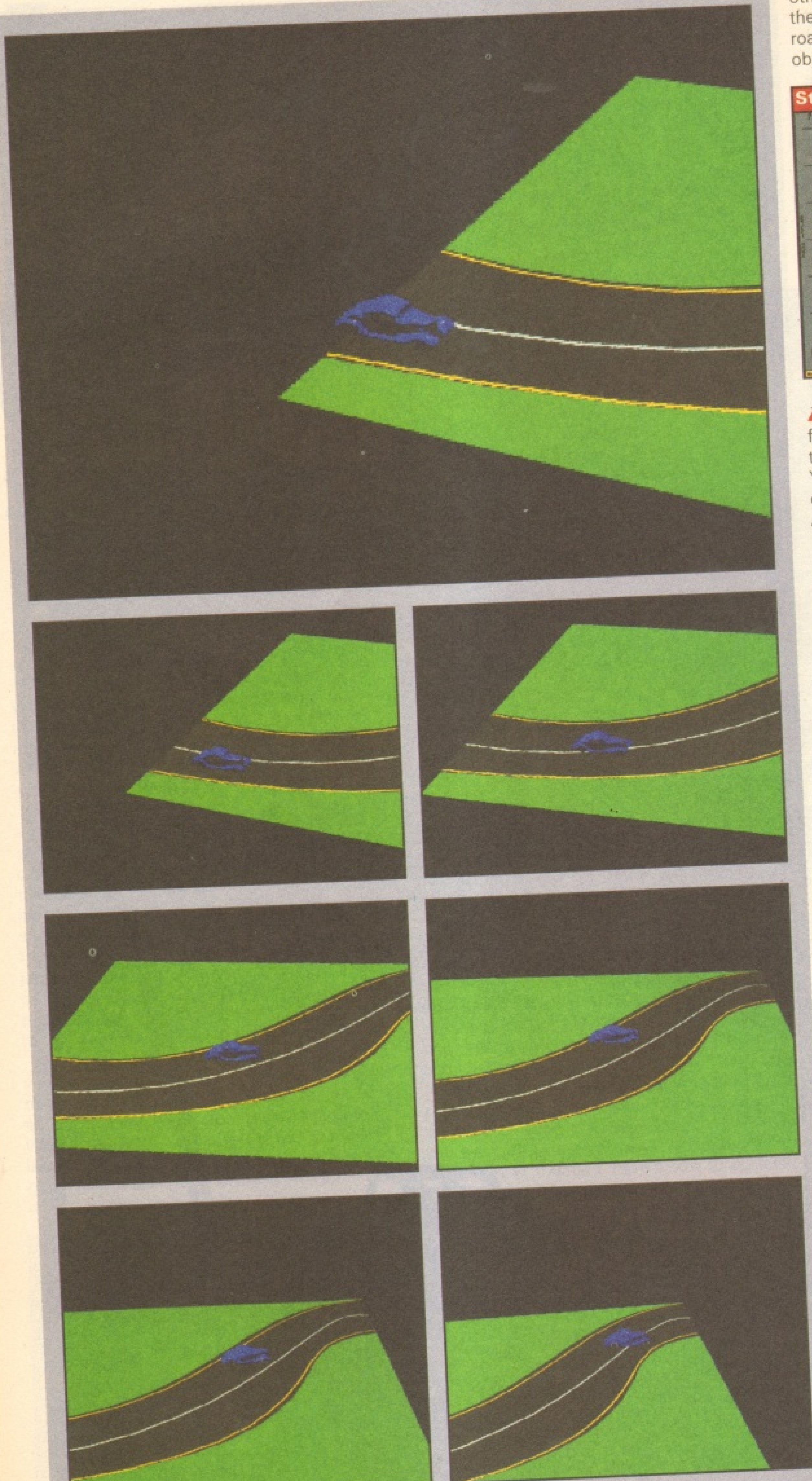


▲ Create a path object. You can do this from within the Stage Editor, from the Object/Add/ menu. Add an open path (a closed path is an orbit, where the end and start points are the same). You can now edit the path by selecting Edit Path from the Mode menu. You'll see a tiny pair of points: move and rotate these like



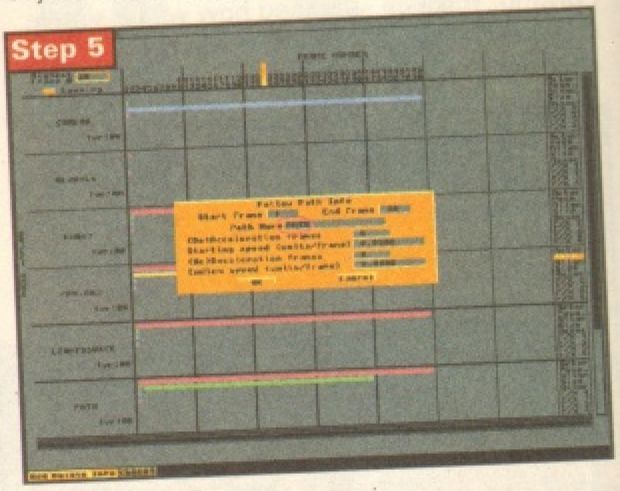
▲ **Let the camera pan across, locked to the car to keep in the centre of the screen. Trees help add a sense of depth.**

Continued overleaf ▶ ▶ ▶



▲ Following a path, our car object appears to skid around the bends.

other objects (use Move and Rotate). Drag out the path to roughly follow the curve in the road mapping. You'll be asked to save the path object as you progress, so do it.



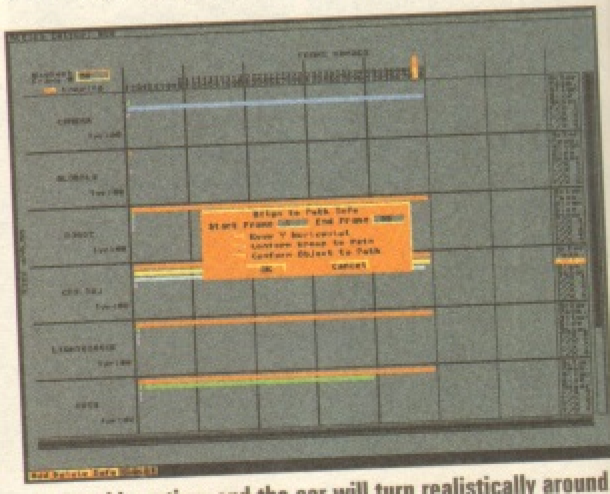
▲ From the Action Editor, set the number of frames to 50 and adjust all the objects so that they are all present for the entire fifty frames. You might want to align the camera to the car object: to do this, delete the camera's existing Alignment timeline and add a new one. You'll be given Track to Object as a choice, and asked to enter the object you wish to follow. Now the vital part: delete the car object's existing Position timeline, and enter a new one. Make sure you select Follow Path and enter the name of the path.

That's all there is to it! The car will now follow the path and drive merrily along the road. Placing the path in the right place can be a time consuming task, and so there is a good trick to know: if you are using a road bitmap which is the same dimensions as the view window, you can actually load the road bitmap into the view as a shaded backdrop image. You can then position the path with absolute pixel accuracy. Anyway, in the grabs to the left here, you can see the result when you render it. Study it carefully and you should be able to see the next problem we need to overcome.

Skid marks

If you look closely at the grabs, you will see that the car object appears to be skidding around the bend. In fact, it always faces exactly the same direction and this causes the rather unrealistic motion. As you might expect, Imagine solves this problem rather neatly.

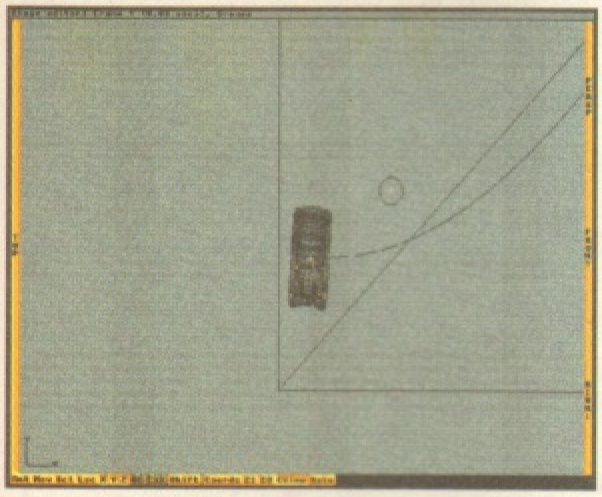
Return to the Action Editor, and delete the car object's existing Alignment timeline. Add a new one, and this time select 'Align to Path'.



▲ Set this option, and the car will turn realistically around corners. Probably.

You won't have to enter the name of the path, as it will be assumed you are referring to the path which the object is already following.

The purpose of this option is to keep the car object at a tangent to the curve, and so enable it to always face in the right direction. However, when you switch it on and return to the Stage Editor you might discover that your object is facing a seemingly random direction, as shown in the screengrab below:



▲ **If the object's internal axes don't line up with the direction of travel, the object will align in an unexpected way.**

Don't panic! This is simply because the car's internal axes happen to be orientated in a different direction. In general, you want the object's Y axis to line in the direction of travel. To change it, go to the Detail Editor and load in the object. Then rotate the axis using Shift-R instead of R, save the object and return to the Stage Editor. You may need to perform several rotations until all the three axes are facing the right way, but do it one at a time to stop yourself getting lost.

Finally, the series of screens that appear on the immediate right of this page, show the final result of getting the car to follow a path, and also to align to the path properly. You can see that the camera follows the car as it first heads directly towards it, and then veers away following the road.

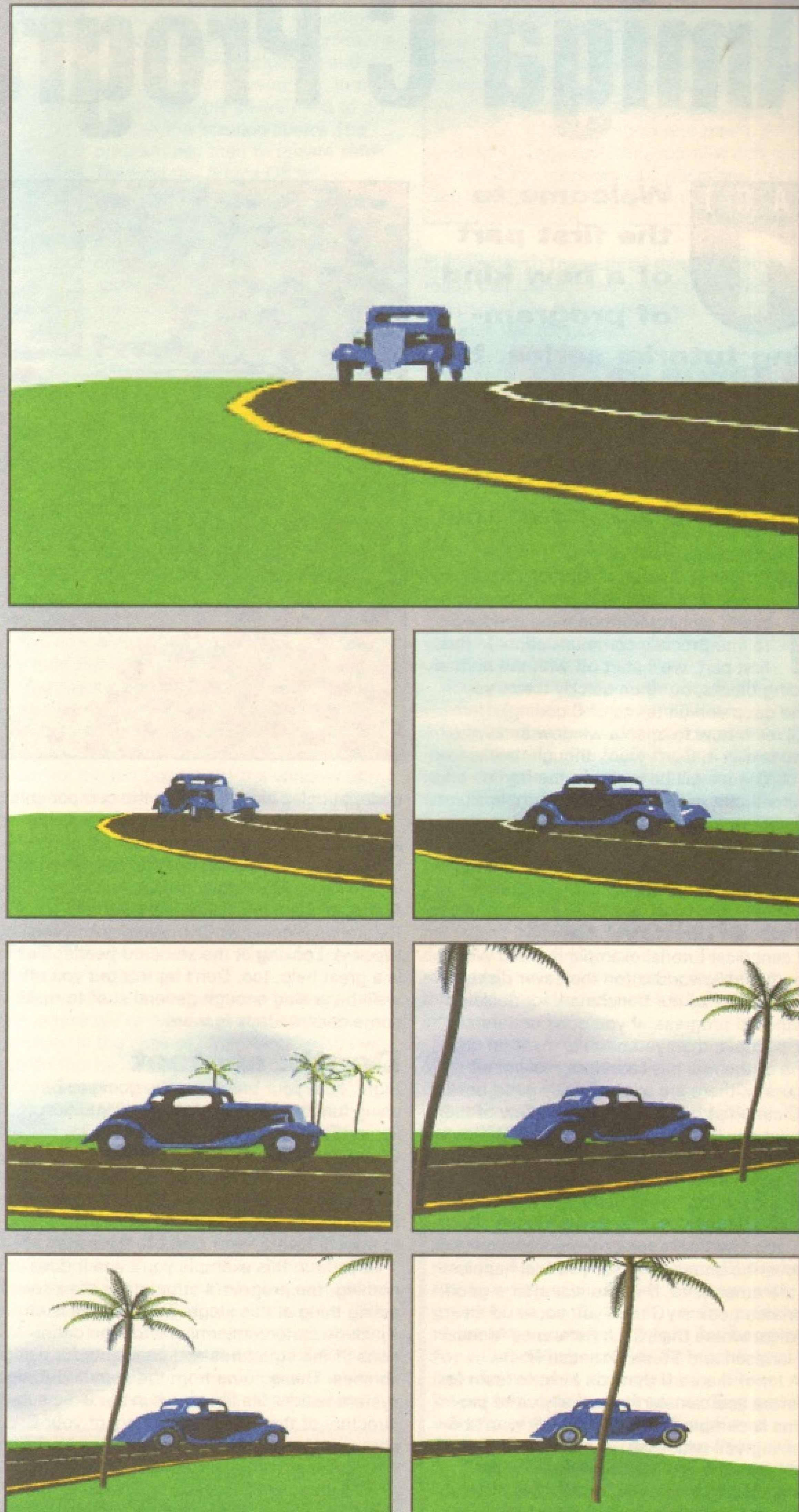
Up and down

You might be wondering if it's possible to make the car go up hill, as well as around corners. The answer is yes: you can change the path in the vertical as well as horizontal directions and so the car can be made to travel up and down. By default, the car will face up and down as it goes – there may be some cases when you don't want this to happen, so click on the Keep Y Flat option in the Alignment timeline. This will make the car stay totally horizontal – as if it were flying over a bump in the road for example.

The remaining options in the Alignment timeline are worth trying too: they cause the object (or group) to bend to follow the path. It's a great comic effect: the car will appear to change shape as it moves around. If you want to animate bouncing beams of neon or a magic carpet, or the hands of a clock: this is the option you need.

There are plenty of other tricks to consider too. We'll get a chance to look at some of these in more detail in next month's CU. ■

John Kennedy



▲ **Part of the car animation. See how it changes the direction it is facing as it follows the path. Now all you need to do is animate the wheels as they steer the car and add some sky and clouds to the backdrop.**

Amiga C Programming

PART 1

Welcome to the first part of a new kind of programming tutorial series. It's designed to cut directly to the chase. So dive in and say hello to some real world applications!

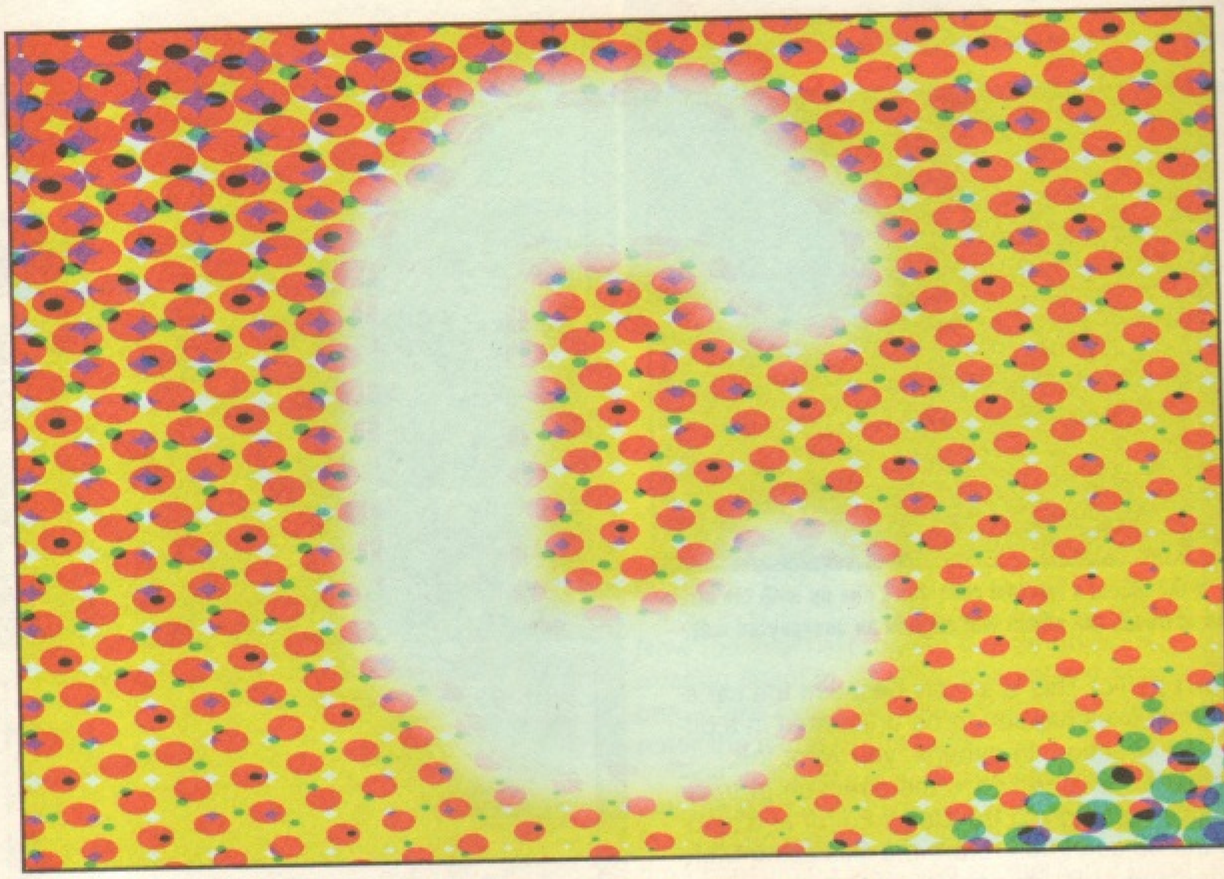


Illustration: Tom Cox

The aim of these tutorials is to introduce some of the key parts of an Amiga program, ranging from opening windows to interprocess communication. In this first part, we'll start off with the normal building blocks, but then quickly throw you in at the deep end (in terms of C coding). Here you'll learn how to open a window and write some text in it. Don't worry though, because the hard work will be worth it: the frameworks we create are present (in some form) in all Amiga programs and we've even included each example on the cover disc so that you can simply import the file from disc and begin to work on it immediately.

The shallow end

The canonical tutorial example is Hello World, filename 'helloworld.c' (on the cover disk). We'll use this as our benchmark for deciding whether to progress: if you don't understand this example, then you need to swot up on some of the real basics before moving on.

Luckily, there are a lot of really good books on C aimed at beginners, but very few of them present any kind of Amiga bias. Straight from the horse's mouth comes The C Programming Language by Kernighan and Ritchie (Prentice Hall), a book that many seasoned professionals cut their teeth on. However, it's wise to look at a few books for beginners and maybe choose the one with which you feel happiest. On the other hand, if you're just after a good reference book on C then you could do an awful lot worse than C - A Reference Manual by Harbison and Steele (Prentice Hall).

A lot of the stuff that you have to learn for C before you can start to actually write programs is complex and difficult. We won't be troubling you with that, as we want to dive right in and let you start to work with programs right from the beginning. This means that some of the more complex coding will be mastered by you learning it, 'parrot fashion'. To do this, we have supplied a lot of routines and programs listings on the cover disk. These are annotated files that not only give you the code, but also clearly explain the components.

This way a lot of the idioms (like opening and closing resources) are heavily reused. However, there's also a lot of things for which you really need to study the Libraries and Autodocs volumes of the ROM Kernel Reference Manual by CBM Amiga (Addison-Wesley). Looking at the standard header files is a great help, too. Don't let this put you off: we'll be seeing enough general stuff to make some decent steps forward.

Depth: six feet

Right, hold your breath: we're going to be using functions from the Amiga's Intuition library. To do this we need to first call OpenLibrary (with the argument intuition.library, in this case) so that the Intuition library's functions are accessible. This first example, filename 'basics0.c' shows how to open a library, error check and cleanup.

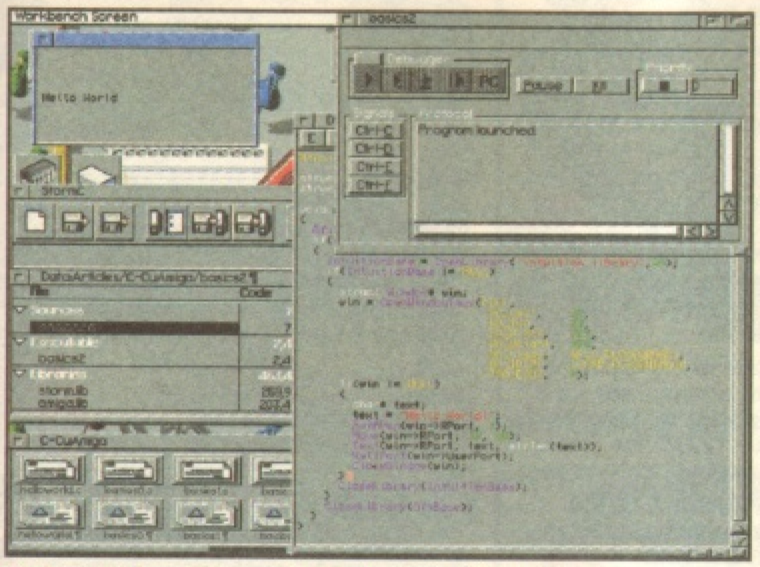
If you run this example you'll see it does nothing: the program's structure is the interesting thing at this stage. The first line is an #include statement, which adds the definitions of the structures and constants for using libraries. These come from the standard Amiga system header file libraries.h in the exec subdirectory of the includes directory of your C compiler. We must include this header to define the Library structure, as we'll be using it soon.

The next significant line is another #include. This includes another standard header file: exec_protos.h from the clib sub-directory. This file contains 'C prototypes' for all the functions available in the Exec library and, in particular, it includes a prototype for the OpenLibrary function we're going to use.

Next up is the declaration of the global variable IntuitionBase. This is the variable where we will store the pointer to the Intuition library base (i.e., the collection of routines in that library). Because of the strict type system in C, we need to give the variable the correct type, which is the type of the result of the OpenLibrary call. There's a subtle issue here: we aren't free to pick the name of this variable. It must be IntuitionBase, with precisely that capitalisation, and it must be a global variable. This is dictated by the Amiga system file

Libraries

The Amiga system routines are stored in a standard set of libraries', which are stored in the KickStart ROM and the Libs directory of your Workbench disk. The most fundamental library is the Exec library; in fact, it contains the OpenLibrary function which is the cornerstone of making use of library functions. To use a library's functions you must obey a few rules, and this bears an analogy with a real library. The first thing to do is open the door, using OpenLibrary. Once inside you can make use of the reference material (and call the functions in the library). When you've finished, you need to close the door behind you using CloseLibrary. The Exec library is an exception to this: its functions are available without having to first call OpenLibrary. Things would be a little tricky if this weren't the case, as OpenLibrary is a function in the Exec library...



▲ **Hello World: opening windows using Amiga C, it really isn't as hard as you might think.**

amiga.lib (or the equivalent for your compiler) which will be linked with your program. The naming scheme for the standard libraries is pretty obvious and we'll be meeting the common ones, so this isn't a big problem.

Now that the environment for the program has been set up we can look at the single lump of real code: the main function. This is the entry point of every C program: every program must have one and it's where the action starts. The declaration void main() says that the function does not return a value (the result type is void) and it takes no arguments (the parentheses () are empty). We'll see the declaration and definition of other functions later, but for now we'll just define main.

Initialising

The first line of code in main initialises the IntuitionBase variable using an assignment statement, =. The OpenLibrary call tries to open the Intuition library, and at least V36 of that library (i.e., OS2.0 or greater). If the library cannot be opened for any reason (e.g., the program is being run on an OS1.3 machine), then OpenLibrary will return the special value NULL. If our program is to behave gracefully (and not crash!) in this circumstance, we must check the value now stored in IntuitionBase. We can call Intuition routines only if this value is not NULL, so the next piece of code is an if statement that performs exactly this check (!= can be read as is not equal to'). This is our first taste of the massively important topic of error checking – almost all library functions you call will need to be checked for errors, and your program needs to be able to cope with any errors in a reasonable way. For our simple example we will stop if the library can't be opened. A real program might want to tell the user about the error before terminating.

If the Intuition library was successfully opened then the program executes the following body of the if statement. The first source line is the comment Do something, and this is where the guts of your program would begin. After the execution of this part of the program comes the cleanup: closing, releasing and deallocating any resources. In this simple example all we need to do is close the Intuition library. The program can then terminate safely. The way the Amiga OS works means that it is vital that your program handles the resources it uses properly. Failure to do so may deprive other programs from access to those things or leave a mess on the screen.

Fresh air

Now that we've whizzed through a lot of the basics, we can open a window (and start to breath normally). This next example, filename 'basics1.c', simply replaces the comment in the if block with some real code. Have a look at the other differences between this and the previous example.

What the new code does is to declare a local variable win within the if block. This variable will hold a pointer to an open window, described by a Window structure. This structure is defined in the intuition/intuition.h header file, so we've added an #include line for this near the beginning.

The most significant new bit is the call to OpenWindowTags. The first argument NULL says that we are going to specify the window using just the following tags. The first tag specifies the left position of the window as being 20: the item is WA_Left and the data is 20. (The constants like WA_Left are also defined in the intuition/intuition.h header file.) The next three tags should be self-explanatory, and we'll come back to the WA_Flags and WA_IDCMP. The constant TAG_DONE is defined in the header file utility/tagitem.h, so once again we've added an #include line for this at the beginning.

Remember that we can't use a library function unless we've given a prototype for the function. In the case of OpenWindowTags we can do this by including the header file clib/intuition_protos.h.

Now we begin to see a bit of symmetry: the win variable is error-checked and at the end of the if body is a call to CloseWindow to release the window resource. Compare this structure with that used for opening the library.

Closing the window

The last interesting line is the call to WaitPort (from the Exec library). All this does is wait for the window's close gadget to be clicked. The WA_Flags tag specified that the window will have a close gadget, and the WA_IDCMP value specified that the program will be told when the user clicks on this gadget (via functions like WaitPort). These three things together mean that the window will be displayed until the user clicks the close gadget and then the program will terminate.

Hello World, again

OK, so we've actually got a window to open now, and it's under the user's control. We'll finish off this tutorial by referring back to the beginning, and greet everyone with a message in the window. The example's filename is 'basics2.c' – it's on the CU Amiga coverdisc.

It should be pretty obvious to you what's happening. We need to use some functions from the Graphics library to do the drawing, so we need to open that library. Again, we use the same structure as for opening the Intuition library. The global variable for the library base is called GfxBase.

The interesting new code comes after the if check that tests that the window was opened. A local variable text is declared to hold the message string. The following line initialises it to be the greeting. Now things get a little more complicated. The call to SetAPen sets the A (or foreground) pen of the window's RastPort to be pen one. (This is the normal foreground pen, and zero is the normal background pen.) The Move call sets the current drawing position in the RastPort to be (10,60), which is measured from the top-left point of the window. And then finally the call to Text draws the message in the window (using the default font), starting at position (10,60). The remaining code is as before.

This fairly mundane example presents some opportunities for experimentation. Trying changing the message, the pen number used in SetAPen, and the position in the Move. ■

Jason Hullance

RastPorts

Drawing is generally done via a RastPort. Windows and screens both have a RastPort that you can use with the Graphics library functions to draw lines and text.

Tag Lists

A tag" is a pair of values: the tag item' and the tag data'. A tag list" is just a list of tags, terminated by the special tag item TAG_DONE. Any tags specified after TAG_DONE will be ignored.

Prototypes

Because C has a strict type system, you need to give a prototype (or a definition) for a function before you can make use of it. A prototype states the name of the function, the types of its arguments and result. Armed with this information, the compiler can spot some of the more obvious mistakes in your programs, so it's well worth the effort.

Next Month

You'll need to be well on top of all these examples before next month's part 2. Absolute beginners will probably need to spend a lot of time with a good book on C, but if you're a little more advanced you might be begging for more things to do. Something to bear in mind is that you can never know too much, and so reading more advanced books like 'C Traps and Pitfalls' by Koenig (Addison-Wesley) or 'Expert C Programming' by van der Linden (Prentice Hall) are a good idea. And don't forget that there's also a lot of sample code on this month's CD (e.g., all the examples from the ROM Kernel Reference Manual').

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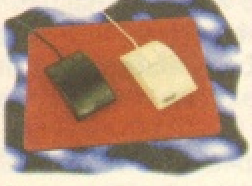


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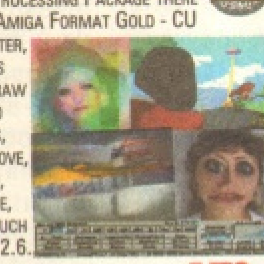
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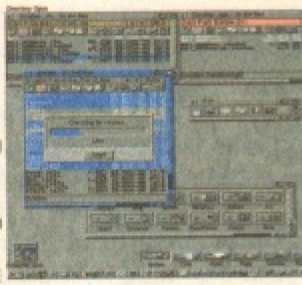
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Surf's up!

Making waves this month: free classic Amiga game, World of Amiga goes online, a new Psion site and a PowerUp home page.

Net God speaks

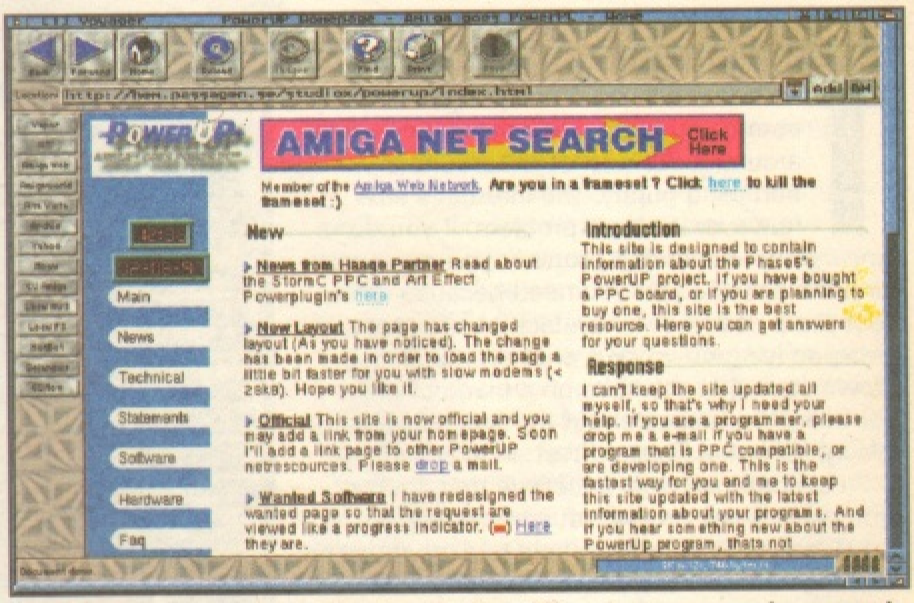
We haven't been rocked this month by the release of any ground breaking Net software but this summer looks like it's going to be a hot one all the same. Both Finale Development and Haage & Partner are squaring off to have their Java interpreters (MOca and Merapi, respectively) for the Amiga and Amiga web browsers ready for summertime release. What does that mean to you and me? Well, from what the companies are telling us, for serious users it means that you can run the Java version of Corel Office. The rest of us can all begin to take advantage of the numerous silly little Java additions people are making to their web site. But, assuming that what the industry pundits say is true, Java is the future (or at least, *A* future) of software development, and since the explosion hasn't happened just yet, it looks like Amiga users will be perfectly poised to catch the goodies as they come.

Free Amiga Game

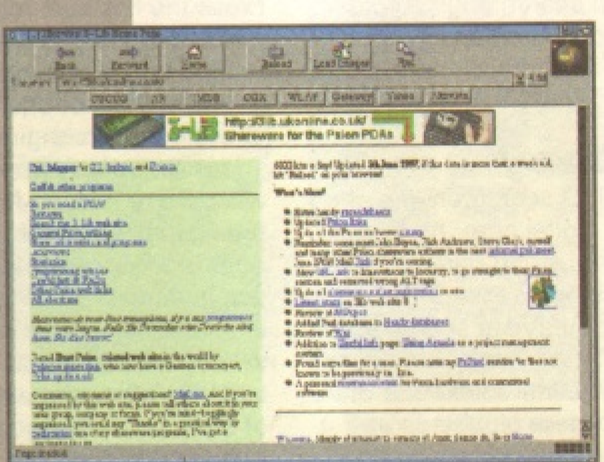
Some classics never die. While many games fall into permanent obscurity when a publisher goes out of business, others get saved from the abyss by dedicated players and cool authors. Alternate Reality: The City, still considered by many to be the best RPG to date, has been made freeware by its original author, Philip Price. Datasoft, the publisher of AR, has been out of business for some time but Price retained the original rights to the game, and after years of searching, Price has been found and has made all versions of the game freely distributable. To pick up a copy of the Amiga version (because of its graphics and music thought the best by many), visit http://www.pacificone.com/sean. Emulator alert: The City's sequel, The Dungeon, was never ported beyond the 8-bit machines, but the Atari 8-bit and C-64 versions are available on this web site as well.

Online WOA Report

If you didn't make it to the WOA show and you're looking to supplement CU Amiga's coverage, drop by Thomas Tavoly's page at http://homepage.cistron.nl/~ttavoly/atmosh/woa97.html. Thomas is an Amiga writer who has done a number of excellent European Amiga show reports, and deserves a look. He brings out the highlights, and there's even a very abstract photo of CyberGraphX author Frank Mariak.



▲ All the latest events surrounding phase 5's PowerPC accelerator can now be accessed thanks to Anders Johansson. Regularly updated and stuffed to the gills with links.



Reliable Psion Site

The rest of the computing world isn't lucky enough to have a supply of dedicated guys like Urban Mueller of Aminet and Kevin Hisel of the Amiga Web Directory to update their resources on a regular basis. If you're following up on one of CU Amiga's Psion features you may not be sure where to turn for online support, and some Psion FTP and web sites are hopelessly out of date. But Steve Litchfield's 3Lib (http://3lib.ukonline.co.uk) is thorough and very regularly updated, including reviews of shareware and commercial products, links to shareware authors, and other Psion resources. Once you've made your Amiga and Psion talk to each other you'll be amazed at the sort of things you can load onto that pocketful of productive fun.

The PowerUp home page

Anders Johansson has taken it upon himself to gather all items of news and significant events surrounding phase 5's PowerPC accelerator program PowerUp; turning it into a superb web site full of information, links and FAQs. PowerUp's home page can be found at http://www.powerup.base.org. As of writing the top news was of the release of the PPC version of the Storm C compiler, PPC modules for Art Effect, Personal Paint PPC add-ons, Superview PPC libraries and news about Imagine 6.0 being PowerPC ready. Exciting stuff? You bet, get down to the PowerUp home page and add it to your book marks now.

Haage's web site gets revamp

The German software developer/distributor, Haage and Partner, carries several high quality products such as Storm C, Art Effect and the forthcoming Tornado 3D rendering package. The web site is a little busy with lots of 'get x now' buttons and such forth. However there's lots of information, downloadable demos (even an Art Effect art gallery) and support material for the products Haage and Partner deal in. You can find the site at http://www.haage-partner.com, definitely worth a visit. ■

Wired World

It's one thing being on the Internet, it's quite another to find exactly what you want on it. This month we show you how.



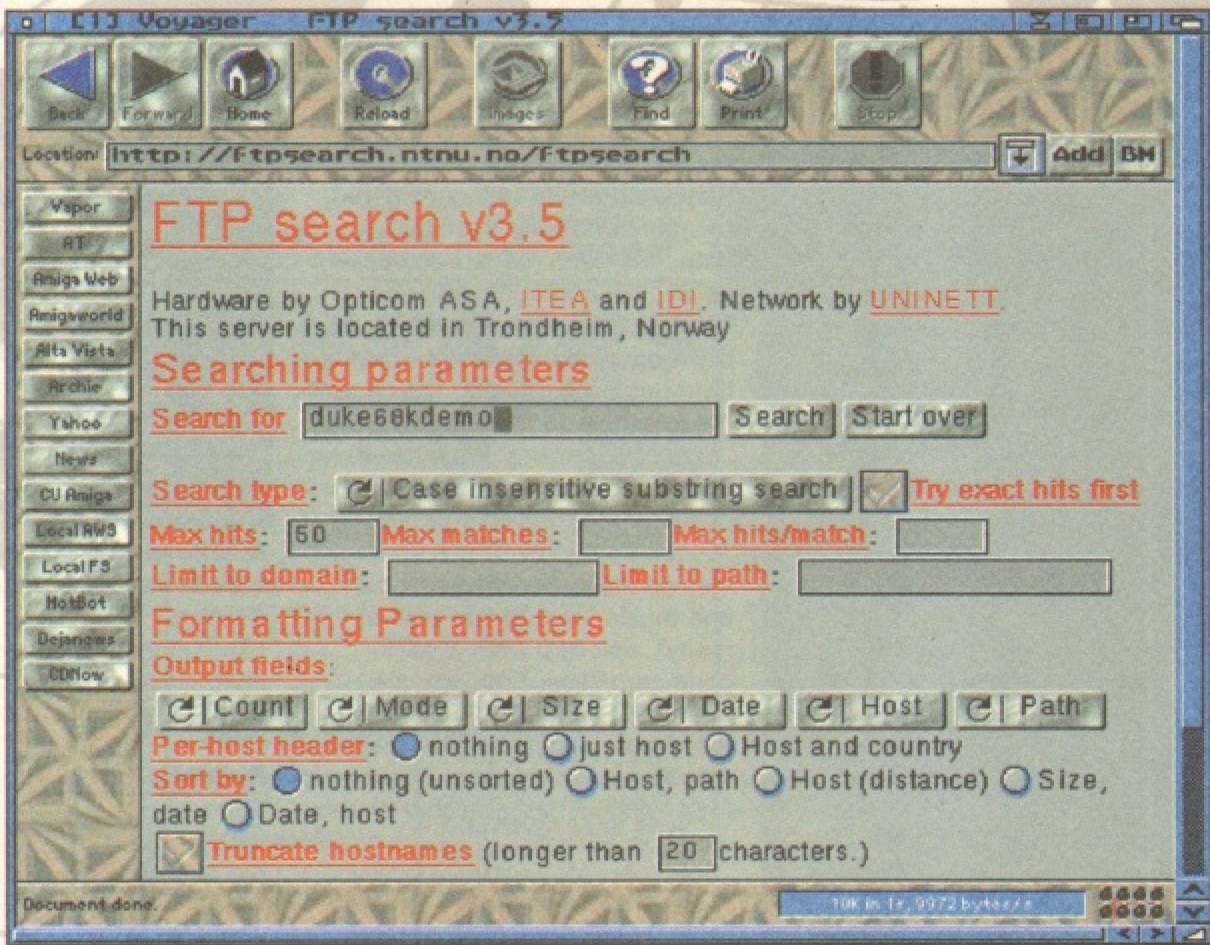
The Internet is big – really big. Think of something huge. The Internet will wrap around it like a toilet roll around a bemused puppy. The Internet's size however is also a problem. If you don't know how to search it properly, you may never find the specific fact you need because it's lost like a needle in a haystack of information. Imagine lying down on a cricket pitch, face down staring at the hairs on a blade of grass (or being depressed about the Australian slaughter in the England test, in my case).

It's simple enough to believe that anything you want is out on the Net somewhere but you'll need some tools to help find what you're looking for. Naturally you're not alone either. Other people are looking for what interests them also. At any one stage there's probably a cricket ground (I refuse to say football pitch) full of people looking for the same thing as you, and using a 'Search Engine' is the only way that anyone is going to be successful.

There are several search engines, but only a handful of them are really any good so there's no reason to use a substandard one. We'll be recommending the best and showing just how to use them to the best effect.

Search Engines

First of all, let's explain what a search engine does. The search page that you will access is is the front end of a massive database that the search engine has compiled. It doesn't actually go out and find what you want when you ask it. It's far too big for that. Instead, it's constantly moving around the entire Web, downloading pages (not graphics) and compiling a massive database. The bit that does this is called a 'spider' and if you ever have access to the logs on your own home page, you will get a few hits from the odd search engine spider from time to time – it only happens if your page has a link from elsewhere of course, otherwise the spider won't know that it exists.



▲ You can't beat FTP Search for finding a file. Of course you have an idea of the filename from the start but if you do, it's will usually turn up a site near by that's fast.

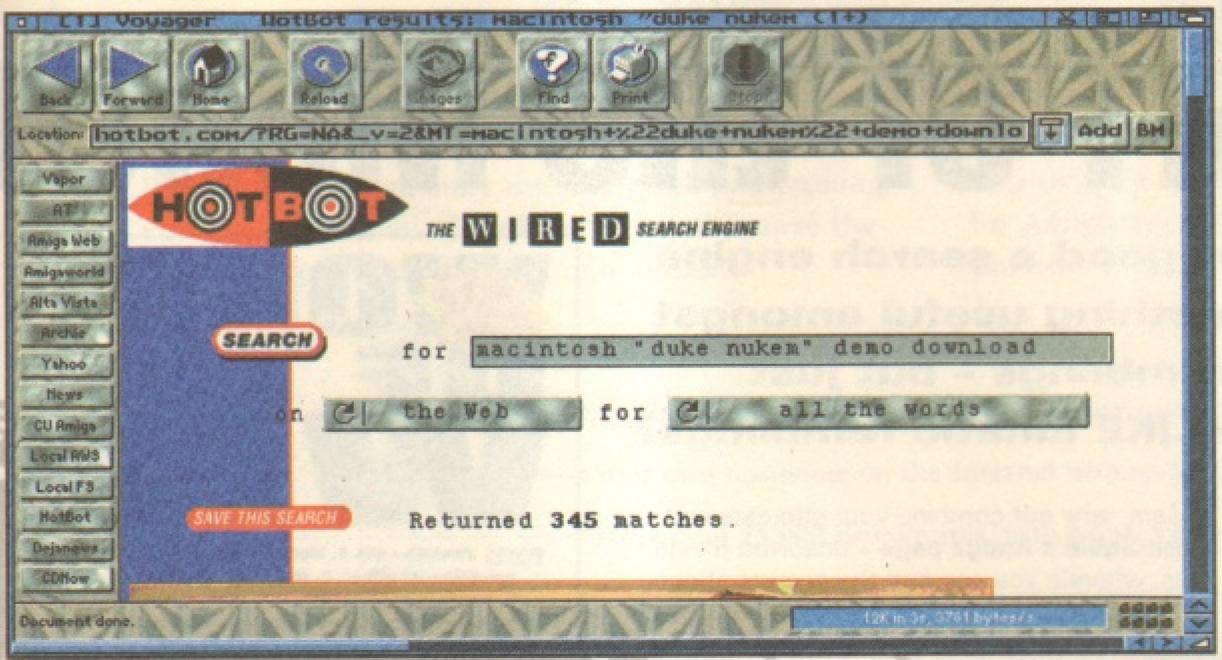
AltaVista ahoy

First, let's try the AltaVista search engine. It's at http://www.altavista.digital.com. As is normal, there will be a 'form' string gadget to enter your search terms on. Pressing the Submit button will have AltaVista search its database and return a list of 'hits'. This doesn't take very long despite the incredible size of the database, as it has a few gigabytes of RAM on a DEC Alpha server. This makes AltaVista the fastest and possibly the most intuitive to use. Try entering 'Amiga Magazine' without quotes, into the search box. Surprise! CU Amiga is the first returned. The heading has come from the page heading, with a quick summary of the text and a link to the page. Press the link and you're at CU's home page.

Things get trickier if you want to find something a bit more specific. Let's say, we want to find alien abductions in the UK. If we type 'ufo' into the search engine, it returns 161,741 hits. There are some interesting sites there but not what we're looking for. Time to narrow down the search. Firstly, if you use upper case, AltaVista will become case sensitive. If you use lower case, it will match any case. So generally speaking, don't use upper case.
What we need are some additional terms. Let's try 'alien abduction england'. Hmm, lots of sites but nothing specific to the UK. AltaVista isn't worried about using all of the



▲ Good old AltaVista telling us what we already knew. Search for Amiga Magazine and get CU Amiga as No.1



▲ HotBot is a favourite search engine of mine. It consistently turns up top recent results – even though the keywords might be buried deep within a web page. Whilst it's not as quick as AltaVista, the end results are well worth the wait.

Search engines

- http://www.altavista.digital.com
- http://www.hotbot.com
- http://www.excite.com
- http://ftpsearch.ntnu.no/ftpsearch/
- http://www.dejanews.com

terms we specified in this case. What we need to do is tell it that England is important, especially since winning the cricket (bah). AltaVista uses the '+' symbol in this case. Enter 'alien abduction +england' and only hits with england will be returned. Turns out the top hit explains that cotton candy haired grey aliens followed a man from England to the USA and harassed his family. Top stuff.

AltaVista let's us use '-' to remove entries of a particular kind if they turn up and we don't particularly want them. If all of the terms are essential, use '+' in front of them all.

HotBot

Let's look at another kind of search engine, Wired Magazine's HotBot, who, it will please you to know uses Amigas to develop its site. HotBot defaults to searching for all of the words, as if you had placed '+' in front of all the terms. The interface is a little clunky but it's a superb search engine. You can use 'AND' and 'OR' on the search box if you want to ensure words occur or allow either/or occurrences. Notice that you can cycle the form gadget to match any word. A useful method is to find a page you really like, enter the URL and cycle the gadget to 'Links to this URL'. Try this with http://www.cu-amiga.co.uk in the search box. Great, we get all the pages found that have links to CU Amiga's home page!

Deja News

Searching the Web isn't everything that search engines can do. One of the greatest resources must be that of http://www.dejanews.com. It works in the familiar way, however it searches Usenet newsgroups rather than the web. Tens of thousands of newsgroups full of people yacking away about those topics. You can guess the wealth of information and opinion that can be found. Let's try something useful by entering 'amiga a1200 ethernet pcmcia uk'. Holy cow, the No.1 hit is a post by someone who says that Hydra Systems sell such a unit and they are based in the UK. Handy huh?

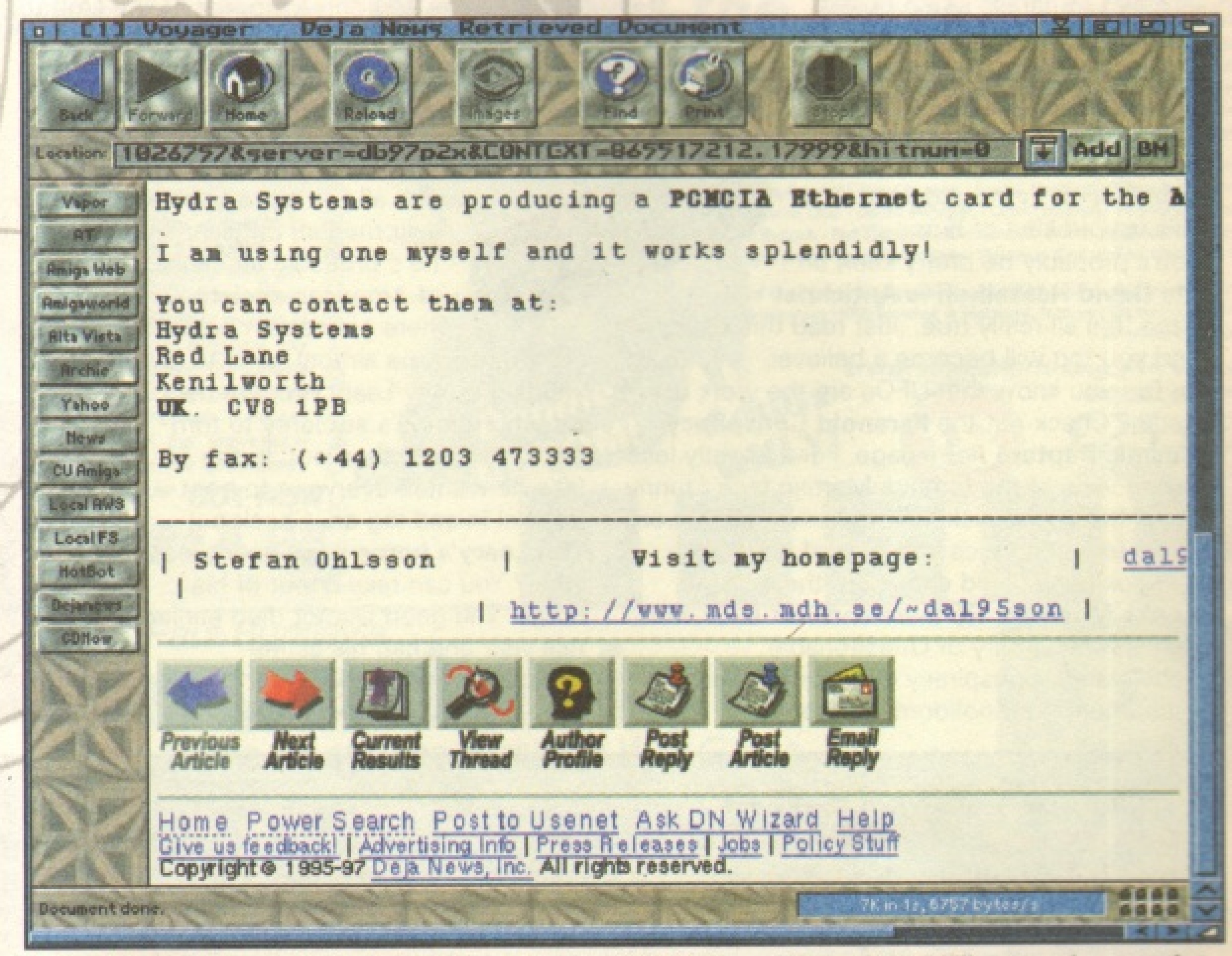
Now for a glimpse of the dark side, click on the chap's name rather than the article title. You'll get a list of all of the groups that this individual has posted into, scary. Deja News has a very nice 'Power search' page which allows changing of the specifics of the search. One of the options, which is usual for all search engines, is to change the amount of hits per page and how verbose the listings of each hit are. Definitely worth a play with.

FTP search

Next, suppose we're after a file? We can't find it via the Web, or perhaps we did but the site is incredibly slow. In this event we can use FTPsearch at http://ftpsearch.ntnu.no/ftpsearch/. Here's an example; I've gone to HotBot to find the Macintosh demo of Duke Nukem 3D for my Shapeshifter. I found it by using 'macintosh "duke nukem" demo download'. Unfortunately the site was really slow so I aborted the download but I now knew the filename. Going to FTP search and using 'duke68kdemo', I found a site on an American university that was very fast and downloaded it direct by just simply clicking on it.

With all of these search engines, the techniques for finding what you want are the same. You'll pick most of them up by experimenting. Just remember to use terms that relate specifically to what you want, otherwise use multiple terms to narrow the results down further. Lastly, don't just look at the first hits. Sometimes the best results can be found further on down the list, perhaps a few pages in. Occasionally you will have to hunt through like this, using the back button on the browser to return to the hits and trying the next site and so on. Don't forget to put your favourite search engines in the fast links of your browser. All you need to do then is click on the buttons to go straight there. Hopefully you'll will find what you are looking for and a lot more besides. ■

Mat Bettinson



▲ Here's a practical example of using Deja News. By using 'PCMCIA Ethernet "Amiga A1200" UK' we turned up a posting in a newsgroup with an address of someone in the UK that sells an A1200 PCMCIA Ethernet adaptor. Hallelujah!



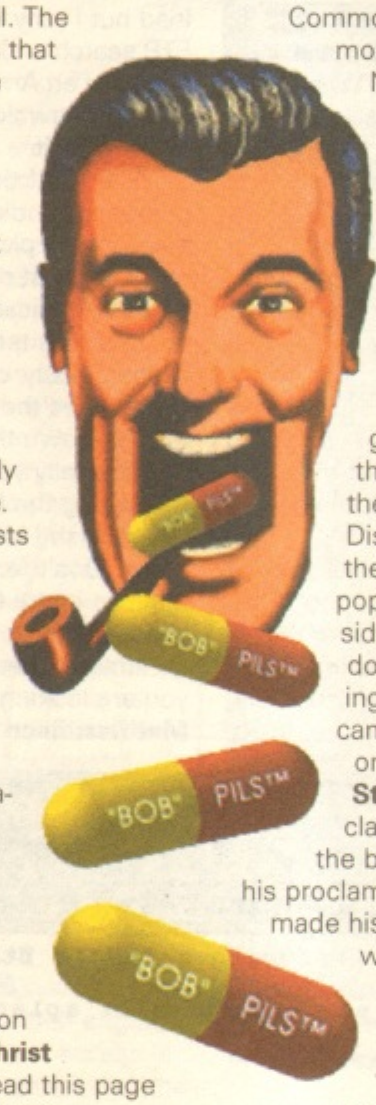
Surf of the Month

You know how good a search engine is for finding something useful amongst the Web's lunatic ramblings – but just suppose you actually LIKE lunatic ramblings?



There was a book published about a decade ago by the Reverend Ian Stang of the Church of the SubGenius called High Weirdness by Mail. The theme of the book was that the snake oil merchants of the past hadn't gone, they were just peddling their wares by post. When the author wrote in the introduction that "The kooks are our future" he didn't realise how right he was. The future is here and the Internet is now the medium of choice for the world's wackiest. Welcome to the world of high weirdness by E-mail.

First port of call is the utterly brilliant **Worst of the Web** site. Buzz, Melvin and Chip, the hosts of this site, review the Web's strangest, ugliest and most bizarre sites. I found the **Harass Bob** homepage link to be the most impressive. The webmaster of this site decided to harass some guy called Bob for no particular reason. He seems to have dedicated a huge amount of time and energy to harassing Bob, and has created some real works of art in the process. If this is your kind of humour, you'll probably be pretty keen on the **David Hasselhoff is Antichrist** page. It's all really true. Just read this page and you too will become a believer.



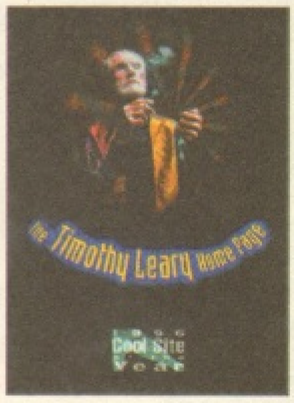
Did you know that UFOs are the work of Satan? Check out the **Paranoid Conspiracy Cosmic Rapture** homepage. For a slightly less raving view of the famous Martian face / funny rocks (take your pick) controversy **Cydonia.org** has a few good pics and a lot of good links.

Kookfans should check out the brilliant **Kooks Museum**. Go there and visit such wonders as the Library of Questionable Scholarship, Conspiracy Corridor and the Monuments to Kookdom. As we are all Amiga users, why not combine your interests and visit **Squid's Amiga page** – unsolved mysteries, wherein you can find the secrets about Commodore and plenty more about UFOs, monsters and earth mysteries.

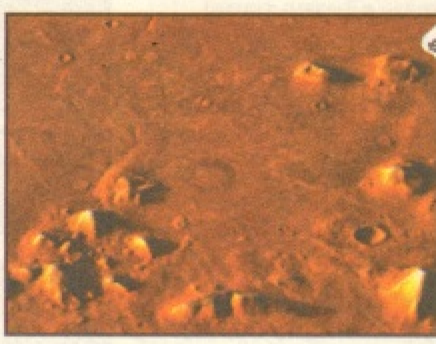
No round up of the weird and kooky can miss out on the old favourite, conspiracy theories. The oldest on-line conspiracy has to be the infamous **Illuminati**, who claim to date back to the last days of Atlantis. Not a busy site, but it contains links to some other famous world domination conspiracies such as the **Trilateral Commission and Microsoft**. The great enemies of the Illuminati are the Discordians, who can be found at the **House of the Techno-Discordians**. Discordianism is the only religion in the world which hands out official pope cards, but this site must be considered dubious due to the .org domain which surely no self respecting Discordian would want. Here you can read all about Emperor Norton, the one and only **Emperor of the United States**. Although entirely self proclaimed, he got to eat for free in all the best San Francisco restaurants, had his proclamations published in the papers and made his own widely accepted bank notes, which all just goes to show that however mad an Englishman may be, he's probably far saner than most of American society.

There are certain persons who have become almost gods to lovers of the weird. Timothy Leary was the doctor who told 60's students to turn on, tune in and drop out. In the 90's he wanted everyone to boot up, dial in and log on. Check out **Tim Leary's home page** and guess what? You can take a tour of his home. The good Doctor died earlier this year and had his ashes launched into space, higher than even he had been before. Robert Anton Wilson, rumoured leader of the Illuminati, extols his own brand of mind expanding philosophy at **The Robert Anton Wilson Homepage.** Finally, there is J.R. "Bob" Dobbs, who is either a '50s door to door salesman or the wisest Guru in history. He is the spiritual leader of the **Church of the SubGenius**, whose web site is one of the strangest and kookiest sites on the whole 'net. Having come full circle, I leave you with this simple warning – don't look too hard – it's bad for the sanity. ■

Andrew Korn









Those sites in full

Worst of the web: http://www.worstoftheweb.com **Harass bob:** http://www.c2i2.com/~ricko/harass.htm **RAWilson:** http://www.rawilson.com **Hasslehoff:** http://www.indirect.com/www/warren/baywatch.html **Paranoid conspiracy:** http://www.mt.net/~watcher **Cydonia.org:** http://www.cydonia.org/ **Kooks museum:** http://www.teleport.com/~dkossy **Illuminati:** http://www.illuminati.org **Techno discordians:** http://www.discordia.org/ **Tim Leary:** http://leary.com **Subgenius:** http://www.subgenius.com **Principia Discordia:** http://128.2.19.107/fiction/principia-discordia.txt **Amiga Squid:** http://users.compassworks.com/~squid/amiga/amiga_unsolved

Desktop Publishing

Professional Page 4.1

Last month we showed you how to get started with this excellent application given away free with May's CU. Now it's time to really get down to some serious page designing...



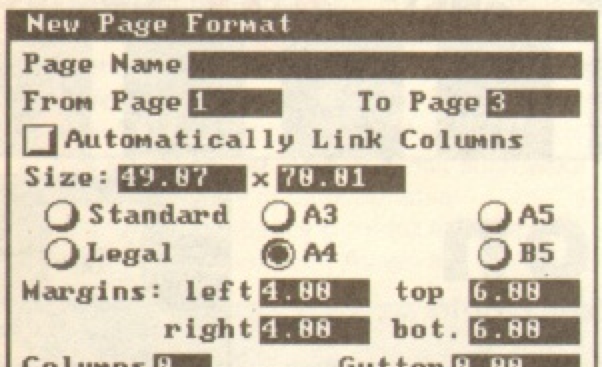
▲ Great looking layouts like this are dead simple in Professional Page. Read on to see how you could create one like this.

After last month's gentle walk through Professional Page's more basic features, we should now have enough momentum to try out the program's more powerful functions. The basis for this month's tutorial is what is known as a DPS or double page spread. Open any magazine and you'll see some left and right pages, forming what is known as a spread: a left and right page that join to appear as one big one.

To create a DPS in ProPage, you first need to create at least three pages, with pages two and three forming the DPS. Page one would be a single right hand page and two and three would form the DPS. Before you can see a DPS in ProPage however, tick the Facing Pages item in the Preferences menu.

One of the advantages of having Facing Pages turned on is that you can now place a picture (or text) right across two pages as you can see in our example (right). This is particularly useful if you have a printer that can print to the edges of the page. If you don't, you'll be left with a white gutter around each page. Remove them by simply trimming the white bits off after printing.

After placing a picture across both pages, let me now highlight some of the other interesting things you will find on our DPS.



▲ To make a double page spread (DPS), you need to create at least 3 pages so that pages 2 and 3 form the spread.

Step 1

Starting in the top left hand corner, you will notice the headline for the page. This is made up of a picture (the large Z) and some text which is made up of two elements. A top layer in red and then a grey shadow piece below it to help lift the red piece of text off the page.

The pieces of text are arranged in layers using the two icons which sit directly below the Page Position gadget in the centre of the toolbar. These icons let you bring active elements to the front or send them to the back.

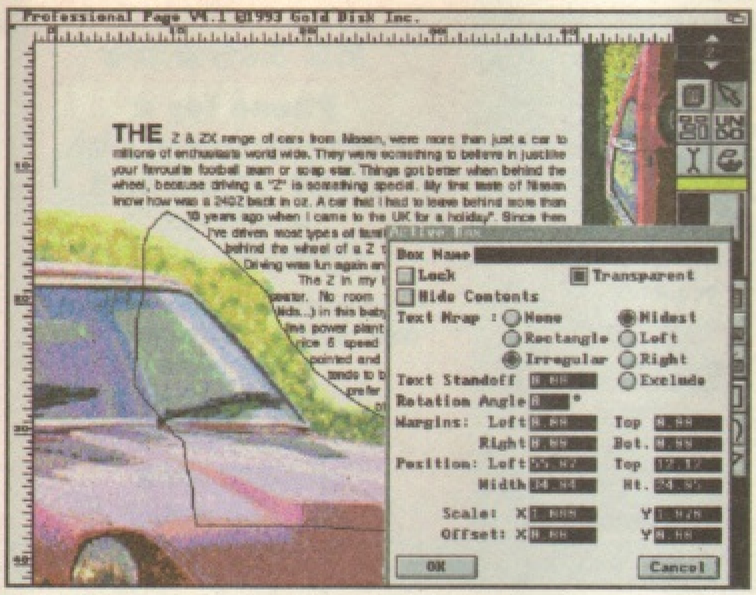


▲ Mix graphics and text, or, make drop shadows by manually making a clone of the text and send it behind the original.

Drop shadows on headings etc, are all the rage in publishing these days and simple ones like these here are easy to do in ProPage. If however you want to create soft shadows with feathered edges, then you will need a package like DrawStudio or ImageFX.

Step 2

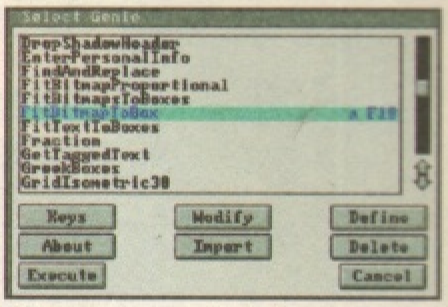
I now want you to take a look at the text on the right hand side of the DPS example. As you can see above, text runs around the main image. It's a simple effect to do, once you know how. Start off by using the free hand tool to draw around the edges of the main image. The trick in creating this line is to make sure that the line weight for the freehand shape is set to None (Draw menu). This means the line will disappear from view and will only be visible if you turn Wireframe mode on. Even though no line weight has been set, it will still force the text to repel and cause it to reflow alongside the line you drew.



▲ Text flows around an image by using the freehand tool to create a shape like this. To make the line invisible, give the shape a line weight of None.



▲ To print a colour layout like this, select Colour and to get it to print in the right place on your paper, experiment using different attributes in the Output Offset text gadgets.



▲ If you want to make ProPage even more powerful than it already is, you need the 70 or so ARexx Genies available free with manuals bought from LH Publishing.



▲ To see colour pages, choose Screenmode and select 256 colours. For two facing pages, choose Facing Page Layout.

The final task in getting the text to follow the shape of the freehand line, is to double click on the freehand shape to bring up the Active Box requester. In here, click on the Irregular button so that any text placed over this box runs around the freehand line.

This trick can be used to shape text into recognisable images like one of a phone, or even the silhouette shape of a car like the one featured here. This type of task is covered in the tutorial book available for ProPage.

Step 3

While still on the right hand side of the page, you will notice a picture of a car pointing down the page. This was rotated by double clicking on the picture to bring up the Active Box requester. In here is a text gadget with the label, Rotation Gadget next to it. Use this to rotate objects by one degree increments. You can also rotate objects by holding down the Ctrl key and using the Null Pointer to drag a handle around to the angle required.



▲ Inset images as above, can have a frame around the image but remember; create the margin so you can see both your line and image together and make sure that Transparency is turned off so the image behind doesn't show through any of the margins created.

Step 4

Let's now move around to the bottom left hand side of the DPS. Here we see two small 'insets', images that are placed over the top of a main image. There is also some text (notice the drop shadow again) but let's ignore the text and concentrate on the two insets.

There are a number of points worth noting here. In both images, I have used a genie (genies were supplied on the CD version of this program), called Fit Bitmap to Box to make sure that the image fills the box, a fiddly task to do manually. With the bitmap filling the box, you can choose to have no frame around it (the top most inset image) or to add a frame like the yellow one.

Start by double clicking on the box containing your image. Make sure the check box next to the label Box Frame is black to signify it is selected. Turn off Transparency by making that box grey/white.

Now click the pointer in the Left text gadget opposite the label Margins. Enter into the Left text gadget a small unit of measurement. I work in picas and entered 0.04 which is equivalent to 4 points, the thickness of the line I'm going to add to this box. I work in picas and points because text and line weights are measured in points.

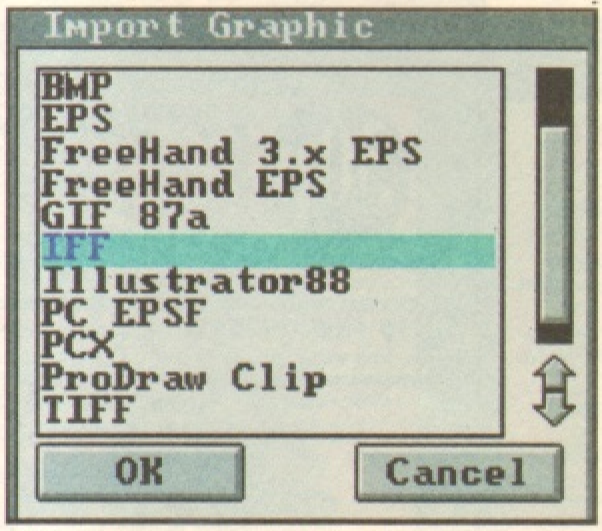
Enter the same figures (0.04 or equivalent) in the Top, Right and Bottom text gadgets for Margins. When finished, click OK.

Now choose from the Draw/Line Weight menu item, a line weight of four points. To change the line's colour, choose Line Colour from the Draw menu. A neat trick here, is to enter a larger margin than the line weight and make sure transparency is off for that box. This results in a piece of white space around the line, useful when you need to make sure inset images stand out from the background.

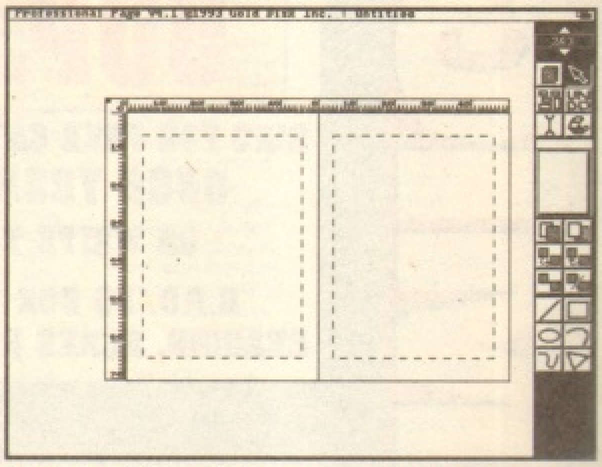
To change the unit of measurement, go to Preferences/Layout Tools where you can choose between Inches, Millimetres and Picas. As a matter of interest, there are six picas to one inch and 12 points to one pica. There is a genie available that will convert between units.

And that's it for this month's tutorial, but do remember that there's no real substitute for practice making perfect. And don't be afraid to try just throwing some pages together. You might be surprised at what you can do...■

Larry Hickmott



▲ If importing a graphic, hold down the Shift key when pressing Right Amiga-G to choose the filter you require.



▲ Here's a DPS or double page spread. In ProPage you can edit elements on both pages as you view them.

Next Month:

After reading this month's tutorial, you should now have an excellent grip of how to use this program. With just a little practice now, you should be able to produce fairly professional results... Next month, we'll be taking the next big step by firstly looking at text formatting and then introducing some professional user tips for this great package.

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DD floppy disks (50) *including multicoloured disk labels* £13.00
DD floppy disks (100) *including multicoloured disk labels* £25.00
3.5" Hard Drive Kit for A600/1200 *+ Install software* £15.00
Diskbox to hold 10 discs £1.00
Animal Jungle design and Dinosaur design ...£2.00
Optical Mouse Mat £5.00
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Logos, meanings and mysteries:

CD32 queries, ParNET and various other CD-ROM-related problems.

All about upgrading RAM, operating systems and processors.

Plug-in hardware of any kind: scanners, disk drives etc.

Answers to queries on particular pieces of software.

Music, sampling, MIDI and anything that makes a loud noise.

Miscellaneous tools to keep your Amiga running smoothly.

Form-feeds, page-breaks, preferences and lots, lots more!

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Pixels, sprites, animation, pictures. In one small word: graphics.

Spreadsheets, databases, organisers, accounts ...

Everything you need answering about the Internet

Not everything fits into a pigeonhole, but anything you like fits in here.

Q&A

It doesn't matter how good you might think you are, there's always a good reason to share a technical problem. We're here to help you but remember to help us – by telling us as much as possible about your system.

CD. Music. Punctuation.

Like the magazine. Buy it. Especially with the CD. Bought CUCD7. Thought I'd drag the "Sounds" icon over to a spare work partition. I could work through it from there. I've learned my lesson. Some great PD software. Eh?

Wish I'd known. This innocuous little icon. Contained almost the entire CD.

After about 120 seconds loading I feared that the hard drive was in melt down. Chickened out. Tried rebooting.

Unfortunately this left the partition completely full at 250Mb. Unable to complete checksum. Only way out was to reformat. Can you imagine what would have happened if I'd put the icon into my current work partition?

Bought CUCD10. Still looking for software to play music CDs. Loaded the CD up. Icons. Icons. Everywhere. But alas. They were all empty. Tried everything.

Lesson here is commercial CDs boot every time. And. Could you give some idea of file size. On the CDs. "sounds. X meg".

And finally. CD music software. Everyone says, Oh! I got x to play OK. Well. Every piece that I found had volume disabled or removed. In the end I wrote to a guy in Norway. Interplay. Pity I couldn't get it in the UK.

All the best with a great mag.

Andy, no address given.

The sound drawer on CUCD7 was 45Mb. This is pretty normal for a directory on our CDs, and they can get a lot bigger. This is the beauty of CDs. Most people browse through the files on the CD and take just what they want. If you use DOpus or similar, it is very easy to check how big things are before copying.

There is actually no danger in filling your hard drive, you should have just let it happen and then deleted the excess. The danger is in switching your machine off while it is writing to the hard drive. Although a program like Quarterback Tools (given away last month) can often fix it, it is something to be avoided.

As for CD audio software, there is some on pretty much every CUCD. AMICDFS2 comes with some – check out the CD-ROM drawer.

As for CUCD10 having nothing but icons, actually it has plenty. Unfortunately a bug in the old Commodore file system used on CD32s and Squirrels means that they are unable to read it. If anyone still hasn't got a replacement from us, just send your CD (not the case) to our normal address and mark the envelope "CD10 fixdisk".

He's back!

I have owned an A500 for seven years now, and up until about two years ago used it regularly. I have now decided to get back into computing and would like to buy another Amiga. As I have not been keeping up to date with either the Amiga or computing in general, I would like to ask you a few questions.

1. What sort of set-up would you recommend? I am looking at using the machine for music applications, possibly involving MIDI. Would PC/Mac emulation be realistically possible?

2. Would my best bet be to pick up a big box machine such as a second hand A1500 and upgrade that or a second hand A1200 and build a tower as you have been showing in recent months?

3. If I had my system, complete with peripherals, up and running by, let's say, the end of the year, would it soon become obsolete?

4. Finally, what are "Siamese systems" and are they any good?

Adam Webb, Kent.

An A1200 system with a MIDI module, a decent '030 accelerator with some extra memory and a hard drive will give you a very nice system which will run quickly and smoothly and won't cost too much. If you want to spend a bit more, a big box machine with Zorro slots will allow you to buy a sound card, giving you CD quality 16-bit sound. Make sure you pick up our March 1997 back issue, in which we gave away OctaMED SoundStudio, the best Amiga music package available. You can use this to produce direct to disk mastering on your hard drive, but remember that at CD quality output you'll need about 600Mb spare space on your hard drive per hour of recording. A CD-ROM writer can be bought for a few hundred pounds which will allow this to be burnt onto CDs. Emulating PCs is slow, but Mac emulation works very well indeed. An Amiga will emulate a Mac of equivalent specification perfectly except for the display. Four colours is about your limit to avoid slowdown, although look out for a review of the Graffiti graphics adaptor very soon – this promises to solve this problem.

2. The A1200 set up will be a little more compatible with modern software. An old style big box Amiga can be an inexpensive and excellent set-up if you intend to use your machine specifically for music.

3. The system would be very expandable, especially if you go the A1200 tower route. No computer has suffered less from premature obsolescence than the Amiga.

4. Read the review last issue! Basically they allow an Amiga and a PC to work in very close harmony, sharing resources and hardware, and they are quite brilliant.

Citizen K

I am hoping you can help me with my Citizen 120D+ printer, which I want to use with my A500. The problem is that I cannot locate any printer driver software to get the thing to print.

I cannot locate an address for the manufacturer, and no one that I talk to seems to be able to offer me any advice or help.

I can't believe that this has



▲ **Using the manufacturer's print drivers is not always the best option – but it certainly is in the case of the Citizen 120D+ printer.**

proved to be so difficult a problem. Please help.

Tracey Keenan, North London.

Actually, you do have a printer driver for it. The Citizen 120D+ can be run in two different modes, IBM proprinter and EpsonX mode. Drivers for these two can be found on your Workbench extras disk.

However it is well worth giving a call to your local PD library and getting them to sell you the Citizen Print drivers disk. This was released for free by Citizen some time ago and directly supports the 120D+. You will find that using it improves the quality of output no end. Try Classic Amiga PD on 0161 723 1638.

Upgrade mania



I am now the proud owner of an A1200 basic set up. I hope to upgrade it soon. Can you advise?

1. What is the minimum hard drive you recommend?
2. What is the cheapest accelerator you recommend?
3. What are your personal favourites in AGA games?
4. If I connect a CD32 to my A1200 can I save from it to my A1200 floppy drive or hard drive if I fit one?
5. Will I need extra memory?
6. Are there any Amiga clones for the following PC titles – Microsoft Works, Microsoft Creative Writer, Microsoft Greetings Workshop, Plan It Letters, Partition Magic 3.0 and finally, More RAM More Speed by Hurricane?

Mr F R Parker, Birmingham.

1. Depends on your usage – writing text requires a lot less space that rendering large 3D animations. Basic minimum is probably 340Mb – smaller drives cost little less anyway – but with hard drives you can have too little but never, ever too much!
2. Given that the excellent Blizzard MkIV 50mHz '030 is down to just over £100 it's getting hard to recommend anything cheaper.
3. XTR, SWOS, Worms DC, Trapped: see our "50 Best Amiga Games Ever" feature in the April issue.
4. Yes. If you have a CD32 already then fine, otherwise you're better off buying a proper CD-ROM drive.
5. Very advisable. Your accelerator will either come with some or take industry standard memory SIMMs.
6. Wordworth Office 6 is a good place to start. You might also want a DTP package such as ProPage 4.1 which we gave away with the June issue. Hard drive partitioning software is not a problem for the Amiga – you'll probably get some with your hard drive, otherwise check out RDPrep. We aren't sure what More RAM More Speed is, but if it's some kind of RAM doubler you probably won't need one, as Amigas are a lot more memory efficient than PCs.

Giving hard drives the boot



Whilst in the process of converting to a tower system I've acquired a larger hard drive: a Western Digital 850 Mb. With the aid of the Workbench 3 hard drive install disk, I managed to prep, format and partition the disk and successfully copied the contents of my smaller hard disk to it. Then the hard drive would not boot up. A friend suggested breaking the lead to pin 1 which, in desperation, I did. The drive still does not cold boot, but on using a warm boot immediately after, it does.

Is there anything I can do to enable the drive to boot from cold, and what is the reason for the fail? Why should eliminating pin 1 enable warm booting? Finally, do you consider it safe to continue using the new drive in this manner?

D.D. Green, Huntingdon.

Unfortunately, because some Amigas start booting very quickly, slow hard drives can be caught out. They are too slow to spin up after power up or

Tech Tips

CD-ROM drives and mountfiles

Everyone is going CD, and mountfiles seem to be causing the most difficulty to readers installing CD file systems. Squirrel users should find this useful too, their filesystem needs updating too, as anyone who had problems with CUCD10 knows.

The mountfile is a textfile, in this case usually called CD0, which tells the mount command the details of a connected drive. This can be a Zip, CD-ROM drive, even a recoverable RAM disk. The two things you are most likely to have to change are the unit number and the device. In some file systems these are set up in tooltypes in the icon and can easily be changed through Workbench. In others you have to edit the mountlist itself. Load the file into a text editor such as CygnusEd, overwrite the relevant lines, save the file back and you are done.

Unit number will be 1 for an IDE slave device, for a SCSI device such as one connected via the Squirrel – it should match the number dialled or jumpered on the back of the drive, and should be different to that assigned to any other device. The device field should, confusingly, read SCSI.device for most IDE mountfiles, but the mountfile that comes with the filesystem should already have this set.

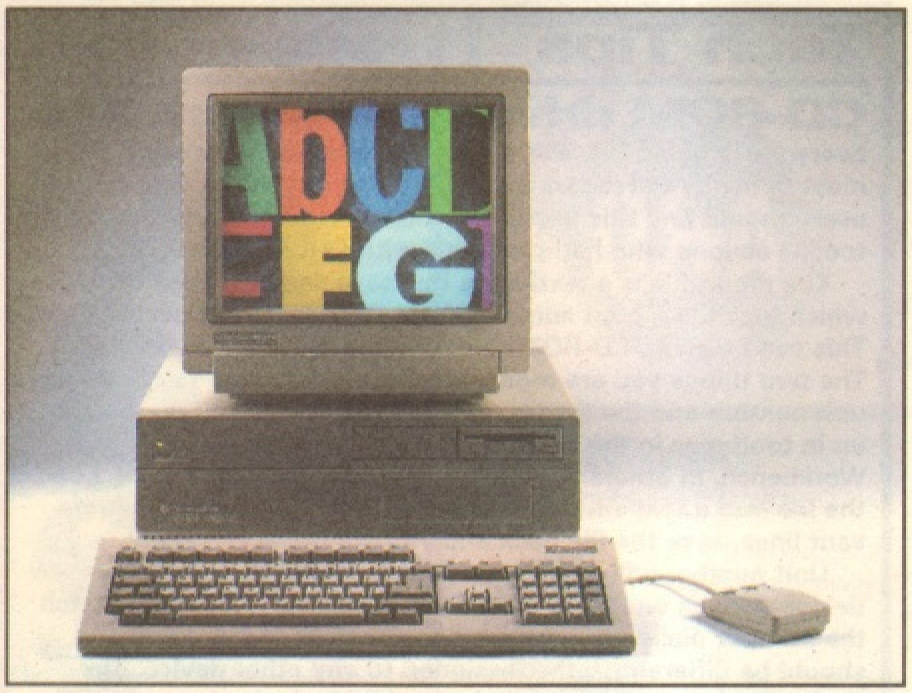
Squirrel users

Squirrels can have the CD drive set up in two possible ways. One is as a CD32 compatible format, in which case the device name is cd.device and a unit number of 0. If you require this it is probably better to keep this software installed and install the new file system as an optional CD1: which you can mount if necessary. Non CD32 set-ups use the device SquirrelSCSI.device, and the unit number 3 seems to be fairly common but do check.

When you are installing a new CD file system, there are a couple of precautions worth taking. It is a good idea to put the new CD0 mountfile in Devs, not Devs/dosdrivers. This way it will not interfere with your old system if it goes wrong. Move your old CD0 into storage. Then reboot your system so the old CD0 isn't mounted. You can now try out your mountlist by opening a shell and typing in "mount devs:cd0" and if your system hangs, you can just reboot and it will go away. Once it is working to your satisfaction you can put it in Devs/dosdrivers and it will mount on bootup.



Continued on next page... ▶ ▶ ▶



▲ **You may have transferred everything into a big box but if you have an old, slow hard drive, the Amiga fast boot up might miss it. See 'Giving Hard Drives the Boot'.**

reset. Pin 1 carries the reset signal, and cutting it means that the hard drive isn't going to spin up every warm reset. It is perfectly safe to run your hard drive in this fashion.

Solving the power up from warm reset problem is a little trickier. The simple solution is just to power up and then almost immediately to a warm reset, but there are alternatives. It can be done electronically, although this isn't a simple operation, and we wouldn't recommend it. The simple answer is to switch on and reboot straight away. This isn't much of a pain if you have a reset button on your tower. We'll show you how it is done in the near future.

For anyone with a similar problem who doesn't fancy chopping up their IDE cables, there is a program on the Aminet called A1200_HDPatch.lha (13k) which claims to solve these sorts of warm reset problems.

Sorry!

Reading through your and other magazines, I feel the time has come to invest in CD-ROM and allow the family to use what appears to be the future of software. I can buy what I need from Eyetech but I was hoping that I might be able to use my son's perfectly useable Philips CDI. How can I do this?

R. Good, Nuneaton.

Oh dear, I guess we can't help everyone. The fact is that there simply doesn't seem to be any practical way of doing this. CD32s aren't a problem because there are networking software CDs to do the work for you. There is as far as we can find no software / hardware for a CDI to Amiga link. If any readers know otherwise, please let us know!

Broken games and registration

1. Because of the rarity of new RPG and adventure games for my A1200 I am constantly searching for games made for the A500 to bolster my stock of games. I am house bound and get a lot of entertainment out of my Amiga, but many of these older titles just don't seem to work on my A1200, even if I use a degrader. Should I buy an A500 or is there some other alternative?

2. I have come across many utilities and software via Aminet and other CD-ROMs which are 'unregistered' shareware, and these programs are often disabled in some form. I know the author wants (and indeed should have) support and payment for his/her work, but the address is usually in Europe and they ask for payment in Dollars, Deutchmarks or Francs.

I'm sure there are many users who are quite willing to register and pay the fee but give up once they see the details. How does one deal with this?

A.E. Perryman, Northumberland.

1. First off the good news. There are a lot of new adventure / RPG titles in the works. You should find plenty to keep you amused over the next year! Getting older games to work can be tricky… Relokick 1.4a is, we believe, the current top degrader, but ask your favourite PD library about game patches – sometimes there are patches to get a specific program to work. If no degrader works however, it may be that you are running into problems with the floppy. Escom fitted A1200s with floppy drives that didn't like some older disks. You can have the internal floppy replaced, but on the other hand I've seen second hand 1Mb A500s for under £50.

2. A good argument for the introduction of Euros? Shareware authors are rarely reluctant to take your money, and will usually be happy to take pounds sterling to a similar value. Drop them a note and ask, and tell them to quote a sterling price in the future! You can actually buy foreign notes from any high street bank, although changing currency will probably cost a couple of quid. The best option, especially if you use a lot of shareware, is to phone your bank and ask them to issue eurocheques to you. These work just like standard cheques but can be written in European currencies. Remember never to send coins!

A2000 relic?

I am somewhat of a dolt whenever it comes to computers etc, but I am willing to learn. I own an Amiga 2000 with a Quantum 3.5" hard drive and WB2.05 salvaged from an A600. My monitor is a colour Commodore 1084s and I've plugged some active speakers into that. I'm only interested in trying to make music (cheers for OctaMED SoundStudio, well good, it will get used) and I can play with Ppaint, Dpaint and DTP software all day. So, you may ask, what's the problem?

I notice that there's a distinct lack of references to the 2000. Is this because the 2000, like me, is becoming a relic of days gone by? If, in fact, it isn't, is it worth upgrading, and how would I go about this? I've been told to chuck it out the window and get an A1200, something about the AGA chipset.

Also, my three eldest children all have Amigas in their rooms, an A500 basic, an A500 with a RAM board and one A600. Could all three be patched to the A2000 so we have our own little Internet?

R.J. Stewart, Hatfield.

The fact that the A2000 has expansion slots (Zorro slots) means that it is a lot less of a relic than your children's old A500s, and can be expanded into a mean, lean modern machine that almost every A1200 owner will envy.

AGA is the standard, and a good thing if you want to play lots of games, but doesn't come close to the quality and screen sizes you can get out of a graphics card. Your monitor won't give you the best out of a graphics card, but if you match one with an SAGA PC type monitor you can have flicker free screens with thousands of colours at four times the resolution your Amiga can currently display.

Processor power is yet another priority – how about a Blizzard 2604 Powerboard, due for release around the time you read this? It represents the most up-to-date technology in the Amiga market, performing at speeds a Pentium user can only dream of. Then there is the CD-ROM route – easy, cheap and gives you access to huge quantities of great software at give-away prices. On top of that you can plug in CD quality sound cards, SCSI connectors, video toasters for professional computer graphics... the list goes on. Some of the most serious 'power' users out there have A2000s. Still worried it is a relic?

The easiest option for setting up your intranet, would be to use a Parallel or serial network. These are cable link-ups, which aren't amazingly fast but are very easy. Depending on how far you want to take it, you could get yourself a multi IO card for the A2000 and then have all the other computers permanently connected to each other, the A2000 operating as a 'server'. Phone Epic marketing on 0500 131486 for Parnet software & cable.

How to write to Q&A...

You can send your technical problems [or answers – Ed] to CU Amiga by the following means:
By letter to Q&A, CU Amiga Magazine, 37–39 Millharbour, Isle of Dogs, London E14 9TZ or Tech Tips at the same address.
E-mail: q+a@cu-amiga.co.uk or techtips@@cu-amiga.co.uk
We can accept letters or text files on floppy disk.

PLEASE DO NOT SEND SAEs. We regret that we cannot respond to queries directly, by post or over the phone, only through the pages of the magazine. We appreciate that some queries need quick answers, but we simply do not have the time to answer every query we get. SAEs go straight in the bin, so please save your stamps!



FAQ

Frequently Asked Questions

The Internet: a load or hype, or a genuinely useful resource?

Q. This Internet thing then: what's it all about?

A. The Internet is a global network of various smaller networks. All the networks are connected together using a standard communications protocol called TCP/IP. All this means is that you can link any computer which understands this protocol to any other computer.

Q. What could I do with it?

A. Once on-line, you can use E-mail (for sending messages and files), Usenet news (for chatting or taking part in discussion groups), IRC (for any real-time text-based chatting) and the World Wide Web (for information). You can download the latest free software to your computer, chat with other Amiga owners and even check out anything from local weather forecasts and cinema listings to the latest images from NASA's Space Shuttle. You can even get details on Open University courses.

Q. How do I start?

A. You need a modem, suitable software (commercial or freely distributable), and an account with an Internet Service Provider (ISP). Last month we organised a complete Internet solution with software and an Amiga specific ISP. If you missed out last month, then just give Wirenet a call on 01925-496482.

Q. What sort of modem should I get?

A. Make sure you get a modem which operates at speeds of at least 28,800 bps. Modems are going through an upgrade frenzy right now and most are available in 33,600 bps flavours, and upgradable to 56K speeds. There are competing 56K standards meaning that not all ISPs will support them. These benefit greatly from a faster serial port like the HiSoft Whippet or Eyetech Port Plus Jnr reviewed on page 60.

Q. Can I go faster than 33,600bps?

A. Yes, either with a 56K modem or by using ISDN. 56K modems are close to 64K ISDN for downloading but upload at 33600bps. Wirenet, the Amiga specific ISP we struck a deal with last month, supports the 'X2' and K56Flex standard, a recommended choice. ISDN is expensive and quite complex. We'll be covering this next month. Another interesting development is the promise of high-speed cable modems. More on that when they appear...

Q. What is it all likely to cost me?

A. After the initial cost of the hardware (modem-£100, and a hard drive for the Amiga) there is a monthly fee to the ISP of about £10 a month plus the normal quarterly telephone bill. You can make it all less painful by trying the NetConnect pack from Active Software (tel: 01325 352260).

Q. Can I shop using the Internet?

A. You can already order goods in the same way as you would by telephone just by supplying your credit card details. The supplier will debit your account and dispatch the goodies the same day. Try to make sure you use an Amiga web browser with security functions such as IBrowse or Voyager.

Q. What about games?

A. There are plenty of on-line games to join in; from multi-player adventures and strategy games to single player demos. Playing on-line Internet games is a great way to meet people and make new friends (and enemies!).

Q. I tried an ISP and they said they didn't support the Amiga, what should I do?

A. Try another ISP who knows something about the Amiga, like Wirenet 01925 496482. If you are technically minded, you can connect to almost any ISP anyway, but it's probably best to get one that can offer technical support for the Amiga.

Q. What's the difference between Internet and CompuServe?

A. CompuServe offers its own dial-up service and has its own facilities – accessible only by CompuServe members. However, the popularity of the Internet means CompuServe is now connected too, so you can enjoy E-mail from non-CompuServe users and browse the Web.

Q. Does Netscape Navigator or Internet Explorer run on Amigas?

A. No, there are no native Amiga versions of these programs: browsers that are currently popular with both PC andMac users. Naturally enough though, the Amiga has its own browsers, which we compare this issue. See the Battle of the Browsers head-to-head review on page 50.

Q. Can I use an Apple Mac emulator?

A. Yes. If you really must run programs such as Netscape, it's possible to run it on an Apple Mac emulator such as ShapeShifter. For best results though you will need lots of memory (8Mb or more) a faster processor (68030 or more) and a graphics card. In most cases, the native Amiga version is faster, more stable and generally a better bet. The latest Amiga browsers are very good.

Q. Be honest: is it all hype or should I try it?

A. Yes, there is a lot of hype, but the Internet is a fantastic resource which grows in popularity every day. There are more and more people getting connected, and importantly, more and more companies are getting involved too. This means that you can now check out local information, send E-mail to your overseas penpals and ask for help when your computer breaks down. You can also shop, read the latest news, look at satellite weather pictures, check local travel information for a preferred holiday destination – you can even book your holiday while still on-line or just watch live pictures from the other side of the world. The Internet is like a gigantic social club, shopping mall, encyclopaedia and TV station all rolled into one. You're missing out if you don't give it a try.

John Kennedy

Backchat

Make yourself heard. Send your views and opinions to Backchat: CU Amiga, 37-39 Millharbour, Isle of Dogs, London E14 9TZ, UK. Or E-mail to backchat@cu-amiga.co.uk

Amiga Cubase?

I have been spending a lot of time at Uni getting people to buy Amigas, as they are ideal if all they are after is word processing their assignments (why get a £1000 PC for just that?). I have sold about a dozen A1200's so far:-)

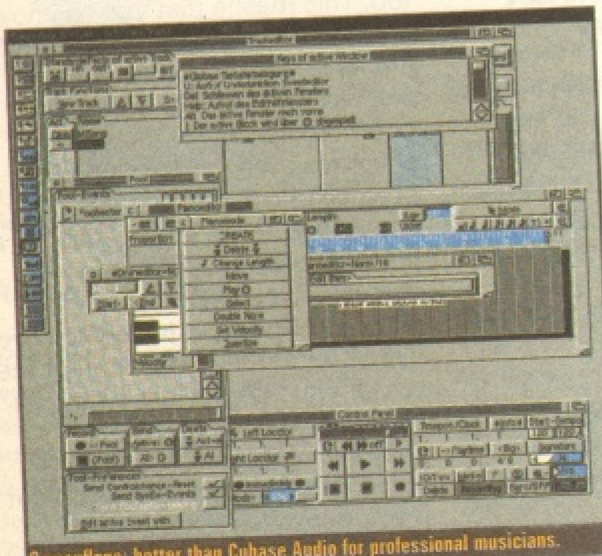
But I also know a few people who are very impressed by my A4000's music playing and editing facilities. They are literally on the verge of getting an Amiga but for one reason: Cubase.

A lot of people on music courses and in general rely on Cubase. Some have assignments to do with Cubase, so the question which may have been asked before is: Why can't anyone persuade whoever develops Cubase to do a Amiga port? Surely the Atari ST version in 68000 code would be easy to do. I think that an Amiga 'Audio' pack advertised purely in music magazines containing an A1200 with Cubase for a sensible price would sell so well. Do you think you could use your editorial powers to find out what is stopping this from happening? Imagine a PowerPC version!

Both you and I know all about SoundStudio but musicians and studios seem to love their Cubase.

Suki, cc505280@ntu.ac.uk

Frankly it's a bit late for that, although you're right, it would be very easy to port Cubase to the Amiga. Running on the Amiga's highly superior operating system it would kick the Atari version into touch.
However, all is by no means lost. Camouflage is shaping up to be an incredible sequencer along the lines of Cubase Audio (in so much as it can sequence MIDI and record AND playback audio from your hard drive all at the same time). We'll be reviewing this exciting new package very soon, giving it a full in-depth test.
As for a real Cubase for the Amiga, there's still a chance if the new Amiga International can follow through with a next generation machine.



Camouflage: better than Cubase Audio for professional musicians.

PC sinner

Forgive me, sizable Amiga community, I have sinned. When a PC at work started playing up, and I got to take it home to fix with elastic bands and bits of old PCs blagged off friends, I started ignoring my Amiga. For one thing, this PC had a monitor, whereas my Amiga used my telly, and for another, PCs have a future, don't they? So, anyway, this 33Mhz 4Mb 486DX became a 40MHz 8Mb machine, and I was all happy with the monitor (but disappointed with the sound – I failed blagging a soundcard, so it was like my old Spectrum), and my Amiga gathered dust.

However! Having been called upon to design a web site for work, and trying to use Paint Shop Pro, I realised that, although it was the best thing you could get on the PC, it wasn't a patch on Personal Paint. And now, using PC2Amiga and bizarre little interfaces and circuits made here, my Amiga's back. So there.

The moral of the story? PCs are all well and good, until you try using them (except for my computer at work, a 32Mb P133 with a 17" monitor, which is alright).

Anyway, after that lengthy introduction, remind your readers that it's not all that necessary to use a mini-tower case if all you're going to do is re-house your drives. We had an old 386 in a low-profile case here that wasn't being used, so I 'alf-inched the memory

Big A\Box or cheap console?

letter of the month

Quite frankly, I do not see how £1000 as an asking price for an A\Box is a lot of cash to part with. You don't get SGI systems anywhere near that sort of price range. Does a PC come with an ISDN connection, digitiser, 16 bit sampler etc. etc. as standard? (this is some of the 'extra' stuff an A\Box comes with). Can PC's come anywhere near the A'Box's performance level?

Consider how much it would cost to beef up a PC/Amiga/Mac to that high level (which I don't even think is possible), then try saying that the A\box is not cheap. Also, will you get Mac/PC emulation on the other platforms? (Which I can see happening). Can you run trusty old Amiga appz on it? Thought not.

For all the moaning non-upgraders out there: you want to be in step with technology yet you do not want to pay for it!! Do you think that your Amigas will miraculously sprout extra memory or speed? Or do you think that coders will suddenly realise that a complex 3D engine can be written 300x faster and smaller, so the entire 200Mb game fits on one DD disk yet runs at 60FPS 1x1 on a bog standard A1200? You want fast 3D games yet you want them to run on a five year old machine. I'm sorry, but it's one way or the other. Either upgrade or shut up and stop moaning that the latest games require a CD-ROM/030+/8Mb+ RAM minimum. I for one welcome these demands as it shows that the coders out there have moved on from coding for a minimum spec machine. This is only the beginning... We have a bright future ahead of us with the PowerUP and all. Don't like it? TOUGH!

Your excuse that Amigas were meant to be cheap is pathetic. They were cheap for what you got and for what you expected out of them. Now our standards have raised and so has the quality and complexity of the games and software.

I for one believe in the Amiga and after a LOT of hard work and saving (I ain't rich and don't have a big salary; I'm only 16), I am buying a 17" Microvitec, a Zorro 3 Micronik Tower with an 060/32Mb RAM, a 12/16x SCSI CD-ROM, a SCSI Catweasel (which CU should review) and when available, a 604/200+MHZ PowerUp card and a CVPPC (when they get cheaper). I'm starting my A-level C++ course next year and am going to develop for the Amiga, using every little ounce of power the 680x0 and the 60x can deliver.

Come on! A CyberStorm II (060) only costs £400 nowadays

for another machine, and I'm in the process of filling this case up, and putting an Amiga power lead in. So, if you don't mind a slightly battered case, pay a couple of quid for an old 286 or 386 in the paper, rip its guts out and use that! If you get a monitor as well, use that too!

Finally, I've noticed that the gramar in the magazine is shocking. Get a grip, Dickey!

Steve.AndersonSR@cf.ac.uk

Web wonders

Hi CU Amiga. This is a congratulatory note for your excellent web site. It is the best web site of all Amiga magazines. Your home page is a model for the other magazines to follow. It reflects the thought and effort being put into the site. There will no more complaints about the lack of new information on CU's web site anymore. Good going!

Mark Dekeyser, Canada

P.S. The same high praise is warranted for your magazine.

Do it right!

My main reason for writing to you is to thank you for publishing Mat Bettinson's rather excellent article regarding decoding MPEG Audio Layer 3 which appeared in CU Amiga's May issue. I was also pleasantly surprised to read that the Amiga sale has finally been completed. My only hope now is that Gateway will actually do something useful and worthwhile with the technology which they now have in their hands, after having passed or should I say slipped through so many.

I seriously hope I never have to live in a world where every computer on every street is Intel based and needs Windows95 to operate. Please Gateway, do it right! Put the Amiga back where it was in 1985 and give people a choice before it's too late.

Ashley Irons.

(remember, this IS the 4000 version which costs more than the A1200 version), and 32Mb RAM costs £120. Do yourself a favour and upgrade. I have and I don't miss my lovely hard-earned cash one bit.

Oh and another thing... Get yourself a modem and a connection to the Net. It hasn't been easier or cheaper and you'll discover how alive the Amiga really is. I can't understand how I ever survived without it.

Alex Georgiev, Alex@sasho.demon.co.uk

I would like to take issue with a point raised in reply to a letter in June's Backchat. In reply to a perfectly sensible letter on how overpriced the A\Box concept was, it was stated that it would be unlikely that a totally new Amiga could be released for under £400 due to the high research and development (R+D) costs. This is an error, and also demonstrates a 'mind set', now becoming wide-spread – that the Amiga is a low-volume machine fulfiling a small niche market.

Less than two years ago the Amiga was the most widely owned home computer bar none. The A1200 in particular, in being the root of an expandable system, was the perfect home computer. It was only Commodore's pitiful 'good for games only' tag given to all Amigas, that allowed PC clones to take up their current market dominance.

So there is a very big potential market out there for our new Amiga. Once you start thinking big, those R+D problems fade away. The Nintendo 64 was not cheap to produce. When I last heard it was selling for less than £150. Its R+D costs are similar. The difference is that Nintendo thinks big and doesn't mind recouping R+D costs over a longer period. The question is not can Gateway 2000 produce a new better Amiga for under £400. It can! The question is, does this company have both the motivation and long term vision required? I hope so.

AF Clitherow, Fife.

Some good points there. Yes, we agree there is still a market for a cheap home computer. However, to equate a new Amiga with the development and marketing of the Nintendo 64 is a little off balance. Nintendo and Sony are able to sell their consoles at these amazingly low prices because they also control the software. They take a substantial cut of all N64 and Playstation games that are sold, and their whole sales and pricing policies are based on this. The economics of the PlayStation and N64 go like this: sell state of the art hardware at very low prices to get an enormous user base installed, then make the real money by taking a licensing fee on all the software that's sold subsequently.



Tekken 2: fast and smooth, but not on the Amiga – yet!

Good show

Ahh, the World of Amiga show. Now that was something to remember! Meeting up with friends, seeing the PIOS-1, chatting to the creator of DOpus and of course, the CU Amiga stand!

Such wonders as the portable Amiga, Mat fighting with an Amiga to make it work and an excellent flight simulator (although I can't remember what it was called!).

Firstly, has Mat sorted out the problem now? Secondly, what do you have to do to get a CU Amiga shirt? And thirdly, what was the name of that flight simulator? Oh before I go back to tapping in lines of code for MaxLotto v3.x, just how do you go about getting a job at CU?

Forever reading CU.

Edward Farrow, wildwing@darkside.demon.co.uk

Did we have the best stand or what? It was great to meet and greet everyone, and the feedback was encouragingly positive. The 'mystery' flight simulator was of course TFX! Yes, it was there, and playable, despite the doubters! Mat is now a little calmer, but these things are relative... As for getting a job with CU Amiga, prove to us you can be of use. Try sending us an example review, tutorial or feature.

Can't beat 3D

I am writing in to challenge any of you PD/shareware programmers out there to have a go at creating a 3D beat 'em up. This is one type of game we don't have on the Amiga which is a pity as Tekken and Virtua Fighter are great. A while back they said we couldn't create Doom-clones but look how far we've come.

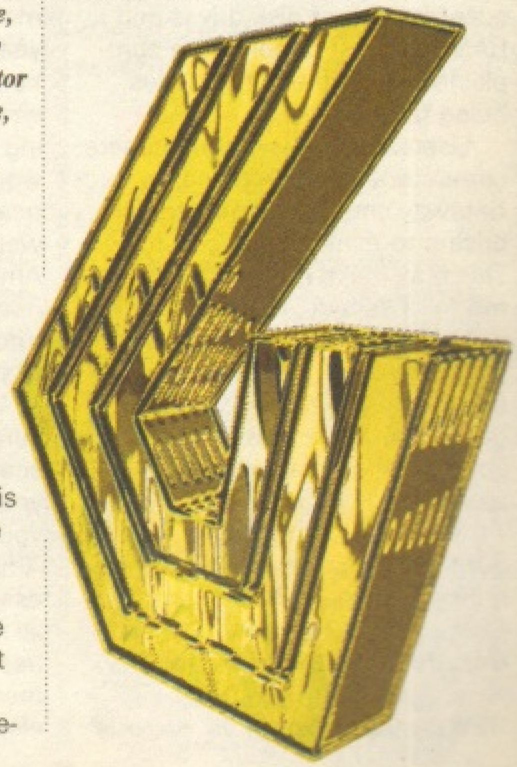
Once you have something created (even in early development stages), send it into CU Amiga to put on the cover CD. Why not team up with your Amiga owning mates and push the Amiga to its limits? Go and play a 3D beat 'em up and see how the camera angles and gameplay are done.

Chris O'Shea, Somerset.

You can vote for a conversion of Tekken 2 on the ClickBOOM wish list published last issue, but see our feature on Power Gaming on page 26 of this issue for more details.

Out of the blue

It is quite interesting to see that Amiga has finally been bought by a company with a reputable name for once. The bid from Gateway 2000 was certainly out of the blue and startled even the most pessimistic Amiga enthusiasts. But this purchase appears to show confidence and the possibility of selling Amiga computers to devel-



Continued overleaf ▶▶▶

oping economies, like China and Russia. But as we all know, the Amiga was strongest in bonnie old Britain and the revival in this country may not be as easy.

The Amiga proved to be the ultimate computer with the first 32-bit console and the pioneer in multimedia. It also gave users and even beginners like me, access to a user friendly computer with an easy to configure, multitasking beast of a processor (even though it was a 500 Plus). But in 1991, the Amiga range offered an added advantage to myself and other teenagers of the time, which was the ease to upgrade, the built in sound card and the built in speakers in your (what weighed a tonne) Amiga monitor. It also had the added advantage of not needing to install to hard disk which greatly helped the consumer.

But that's where it failed. Nine out of ten Amiga users did not have hard disks and were thus prevented from unlocking the power of their Amigas and realising its real potential. I think the possible re-release of the 1200 models should come with hard disks as standard. Don't even give consumers the option of not having a hard drive. This way, consumers will have no arguments for being left behind in the race for technology a few months later.

The price mentioned: around £350. Hmm... I think they need to be more competitive than that!

But one thing the Amiga certainly should try and do is to attack every school and every college. If the computers are at school and colleges the pupils and students will sure follow by getting them as well, killing two birds with one stone.

The Amiga need to improve access times of disk drives and RAM, as most people have complained about these two times being far too slow.

Users should have the ultimate computer as standard and Gateway should use penetration pricing to market it successfully. This may make Amiga trade in the red for a decade, but everyone will have one once the battle is over. Do not make low spec models (apart from the ones possibly going to China and Russia), so software firms can ultimate full specification hardware..

Amiga has a long way to go but to survive it must listen to its market. Thanks for listening

Gareth Gudger, Amigaland.

We'll agree with you on the matter of shipping all future Amigas with hard drives. Problems such as disk drive and RAM access speeds are rather more deeply rooted than you might expect, limited by the Amiga's custom chips such as Paula (it's a bit more than a sound chip!). There are certain alterations that could possibly be made to the existing A1200 to make it more attractive, but really time and money would be better invested in development of a whole new system.

Our survey says

I would like to inform your readers of a survey being conducted by me, Peter Price, to find out what it is Amiga users want to see in the next machine. When enough people have filled in the survey, I'll be mailing it to Gateway 2000, and I would be grateful if you could give the page some publicity in your magazine, as hopefully this will attract people to vote. Anyone interested in voting in the 'What Next For Amiga?' survey can find the page located at: **http://www.agima.demon.co.uk** Thank you for mentioning the page in the magazine, and I look forward to hopefully receiving hundreds of votes.

Peter Price, agima@agima.demon.co.uk

Mag closures

I've spotted a worrying trend that I thought had ceased, but now seems to have reared up again: magazine closures.

I remember when there were about ten Amiga magazines to choose from, but that seems like a long time ago. I could never afford to buy them all, and I didn't want to read every one on the shelves, but the choice was there. I've bought CU Amiga most months since I got my Amiga five years ago, and enjoyed a selection of your rivals too. Now it seems the whole thing is drying up. The games magazines went crap and then disappeared, Amiga Pro came and went before I could get into it, Amiga User International has now finished and I'm hearing rumours that the trend is set to continue.

Without Amiga magazines, surely there will be no Amiga scene. I don't want to put you on a pedestal (though you do a great job) but Amiga magazines are an essential part of it. Virtually all Amiga-related sales are based on mail order, and there's hardly anywhere else we can get information on the Amiga apart from magazines – although the Internet is a big help for those who have access to it.

What I'm saying is, if the remaining Amiga magazines close, the whole Amiga thing will probably go up in smoke overnight. I don't need to stress how devastating that would be to all of us, especially so soon after the promising Gateway deal.

We've all been asking for assurances from the Amiga owners since Commodore died. Now I'm asking you for assurance that you will be around to support us, just as we readers have supported you over the years.

Glen Francis, London

It's a frightening thought, but don't worry, despite any rumours you might have heard to the contrary, CU Amiga is doing fine thank you. There's a world of difference between CU Amiga and the magazines that have closed. Sales are very healthy and as a financial proposition, the magazine is more than pulling its weight.
We can't guarantee CU Amiga will be around forever, but we can assure you it's got plenty of life left in it, and we're manoevering to the best possible position to take full advantage of whatever new developments may emerge from Amiga International.
It's a sad fact that when a magazine starts to fade, nobody wants to work on it and that shows through in the magazine itself, which leads to an accelerating downward spiral.
With the core team of Tony Horgan, Mat Bettinson and Andrew Korn, all die-hard Amiga fans since the year dot, it's certain that you won't be seeing any of that happening with CU Amiga which promises to consistently give you a whole stack of reasons why we should all be sticking with our trusty Amiga, month in, month out, every month!



To the Point...

Cheap cover disks?

Is it possible to purchase back issue cover disks separate from the magazines, and if so how much would they cost?

Clive Seaden, Cornwall

We can't sell you the cover disks alone, but back issues of CU Amiga all come with their CDs or disks. Generally we don't have a license to sell major cover disk applications separately from the magazines. Instead we acquire the rights to publish particular software on a specific issue of the magazine. It is possible that in future we could negotiate rights to publish future cover disks separately from the magazines, although this would inevitably incur extra costs for us. It's also worth bearing in mind one of the main reasons we can put such amazing software on the magazine and sell it for so little is the sheer volume of sales we can count on to offset costs.

Not pink enough

I'm disappointed by the lack of pinkness in your magazine recently. Other mags have been very good at servicing the needs of pink and purple fans such as myself, and I feel this is the only area in which CU Amiga is failing. Here's an idea: how about doing a 'Pink Issue Special Edition' in which you just have a plain pink cover and every page is printed on pink paper. It could become quite a collectors' item. I'd buy it.

The Pinkyman, Stoke-on-Trent

OK. All we need now is another hundred thousand like-minded people and we might just do it.

I saw TFX at WOA!

In response to Allan Brown who wrote in your June issue that he wouldn't be attending the World of Amiga show on the promise of seeing TFX, I'd just like to say that you missed out mate! I must admit to being just as amazed as you probably would have been when I saw it up and running, but there it was, bold as brass and totally playable. I can tell you for sure, it does exist, and it's a damn good game from what I played of it, certainly streets ahead of any other Amiga flight sims in most respects.

Julian Conner, Sussex

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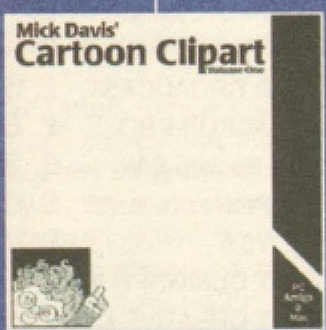
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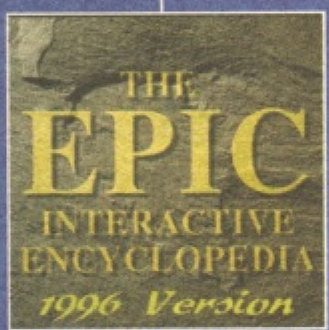
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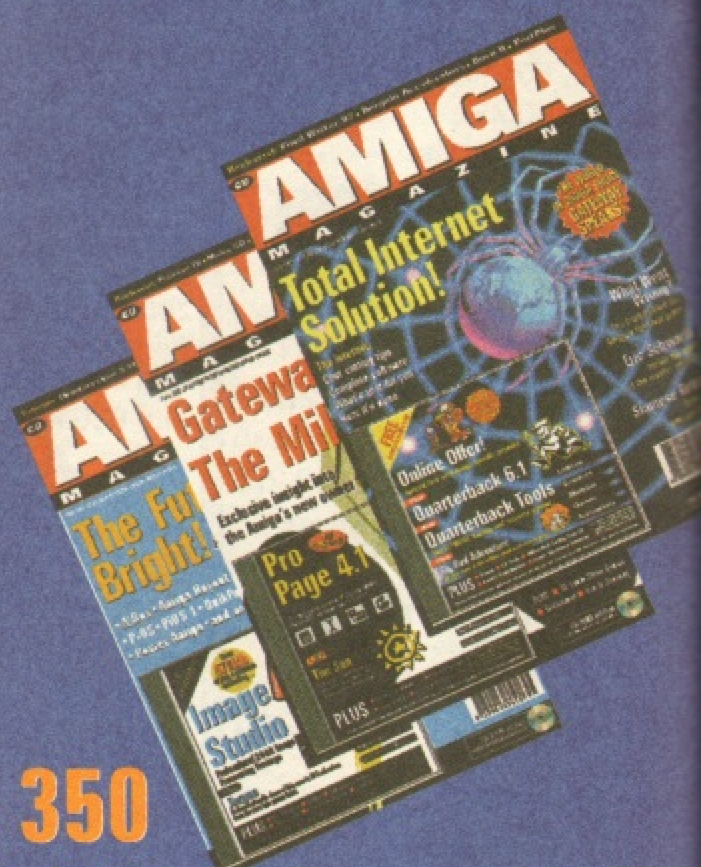
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Here's to joint adventures



by Tony Horgan

Whilst flicking through some recent issues of CU Amiga, I came across a piece I wrote for this column in the December 1996 edition. On the subject of developers such as phase 5 and Pios, I commented "What's required is some kind of joint venture between a powerful international player in the computer industry, and one of these smaller developers". At the time, bearly six months ago, that seemed like a pipe dream.

Now it looks inevitable that the pipe dream is to be turned into rock solid reality. The developer: phase 5. The project: A\Box. The powerful international player in the computer industry: Gateway 2000.

The message of the Gateway 2000/Amiga International press conference of last May seems to make more sense the more you think about it. Everyone was disappointed that a brand new world-beating plan for the Amiga was not announced, but no-one was surprised. However, the message we got was more than just the "wait and see" that it first appeared to be. In fact, it was a positive, if a little vague, declaration that they would freely license the operating system to third parties, and more encouragingly, they want to keep the Amiga beast alive by supporting those who are already working on projects for future generation Amigas.

In phase 5's A\Box, and to some degree the machines from Pios, Gateway and Amiga International have an almost fully formed logical progression of the Amiga. Presuming they want to make a new Amiga, Amiga International could start their own project from scratch, which would surely mean at least a couple of years with nothing to show Gateway, or they could join forces with the likes of phase 5. Playing off Gateway's strengths, they could then have a stunning new flagship for the Amiga name ready to roll within a matter of months, rather than years.

> **"With the Amiga still the major player in non-linear video editing in the USA, Gateway have a market that's over-ripe for a tailor made upgrade path"**

Gateway 2000 recently expressed an interest in offering an alternative to the current PC hardware platforms, and a new Amiga would do just that. With the Amiga still the major player in non-linear video editing in the USA, Gateway have a market that's over-ripe for a tailor made upgrade path, so even if the multi-level hobbyist market across the rest of the world isn't enough to sway them, this demand closer to home could be the key to get things rolling in the short term. ■

■ Tony Horgan is the Editor of CU Amiga Magazine.

Co-operation can't work



by Mat Bettinson

I was following a conversation on the comp.sys.amiga.misc Usenet newsgroup about Amiga web browsers; one chap, supported by some other contributors, had an idea. This being that if the authors of the major web browsers got together, they could make one really fantastic web browser that would 'blow Netscape away'. Since there are 100 mediocre find-it utilities on the Amiga, why didn't all/some of the authors band together to make 'Ultimo Find It Deluxe Turbo Pro'? Sounds good doesn't it?

Bzzzzzzt! This is flawed logic. Let me explain. There're several problems with the theory that are easy to miss from the point of view of a shareware consumer. Firstly, do software authors sit down to program a package on the basis of what the Amiga market needs? No. The main reason is that they need a particular program themselves. They probably don't like other programs in the genre and actually would enjoy programming a better version, to their needs, from scratch.

Imagine you wrote the 'inferior' program. Someone calls up and says, "Your program needs work, let's work together". Rarely is this call made and it's unlikely to be well received. If the original author wants to continue working on a project, he will usually be aware of shortcomings since software consumers will have pointed it out. Co-operation is not impossible but it's important to consider this from the programmer's point of view.

The specific browser issue illustrates this well. Stefan Burnstrom, Oliver Wagner & Yvon Rozijn all earn considerable sums in sales/shareware fees, good on them. However this means that they are all trying to outdo one another, competing and driving the general standard forward. Further more, they have radically different ideas about how a browser should work. Yvon (Aweb) is quite opposed to the use of MUI for example. And any innovative idea could easily be 'borrowed' in some form, or even improved upon by the others.

> **"if the authors of all of the major web browsers got together they could make one fantastic web browser"**

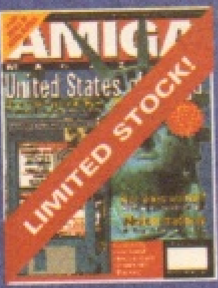
Due to this,having these authors working on the same project is neither viable nor desirable – it can only hinder matters and reduce the level of consumer's choice. If it wasn't for the fact that thousands of Amiga programmers thought they could do better, the Aminet wouldn't be a fraction of what it is today. Thousands of programs, all for free, all competing to be the best and hopefully good enough to one day attract a shareware fee. Just let someone try to write a useful program, disable some of its functions, distribute it and then charge £50 for upgrades. They can do it on the PC but just let them try it on the Amiga. No, the current situation is what competition, choice and back yard innovation is about. It's also what made the Amiga what it is today. ■

■ Mat Bettinson is CU Amiga Magazine's Technical Editor.

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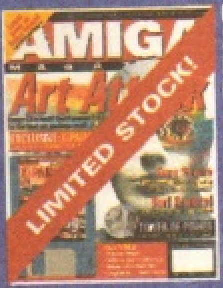
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June 1996



ON THE DISKS: Termite demo, Killing Grounds demo. Plus free 96 page net and comms guide.
FEATURES: Escom sells Amiga Technologies, publish your music.
INSIDE: Modem round-up, Total Football and new TimeKeepers disk reviewed.

July 1996



ON THE DISKS: XiPaint (full program) and Primal Rage demo.
FEATURES: Special report on what's happening in Europe and the latest on Visorp and PIOS.
INSIDE: Image FX 2.6, Surf Squirrel, A4000 Tower, Primal Rage, SWOS Euro and more reviewed.

August 1996



ON THE DISKS: EasyCalc (full program) and Valhalla III demo.
FEATURES: The future of the Amiga with VIScorp, the new PIOS machine and the second part of the Euroscene feature.
INSIDE: Siamese Twin, Photogenics 2.0, Valhalla III and Tin Toy reviewed.

September 1996



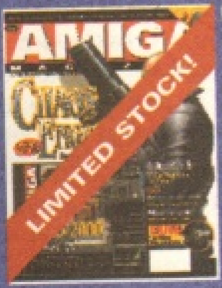
ON THE DISKS: Vista Lite (full program) and a demo of Brian Lara Cricket '96. CD-ROM edition too.
FEATURES: The Aminet exposed. All 6 gigabytes!
INSIDE: Final Writer 5, OctaMED SoundStudio, Atapi CD-ROM drive. Plus an exclusive preview of the new AGA Worms.

October 1996



ON THE DISKS: Upper Disk Tools: ideal for sorting out those awkward disks and drives!
FEATURES: The Amiga in America, Net software...
INSIDE: The speed issue, or something. Three top accelerators, a TCP/IP stack comparison and Capital Punishment.

November 1996



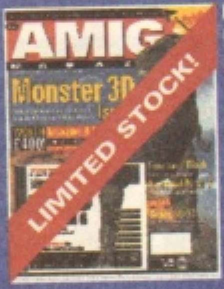
ON THE DISKS: XCAD 2000 - The premier 3D CAD package, plus Chaos Engine 2. Choose CD-ROM or floppy edition.
FEATURES: Palmtop Amiga-Psion link-up.
INSIDE: Opus 5.5, Delfina DSP sound card, Web Browser War, Alfa Quatro, CD-ROM writer and more.

December 1996



ON THE DISKS: Wordworth 3.1 SE, Worms – The Director's Cut demo. CD-ROM or floppy edition.
FEATURES: CD-ROM drive for £50! Amiga and PC games on CD-ROM.
INSIDE: Draw Studio, Apollo 1230, Storm C, Siamese RTG system, Teen Agent, Tiny Troops and more.

January 1997



ON THE DISKS: Imagine 4.0, Underwater Capers, plus over 100Mb of Imagine extras on CD. CD-ROM or floppy edition.
FEATURES: Get a job in computer graphics, plus eight pages of Imagine 4.0
INSIDE: Art Effect, PPaint 7, SWOS 96-97, Fighting Spirit, Chaos Engine 2 ...

February 1997



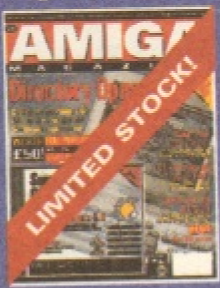
ON THE DISKS: Design Works, Minskies Furballs plus Worms – the Director's Cut extras and Imagine extras on the CD.
FEATURES: The new A/Box and working in computer graphics part II.
INSIDE: Wordworth 6 Office, Turbo Calc, Minskies Furballs, Bograts reviewed.

March 1997



ON THE DISKS: OctaMED SoundStudio (full program) Chaos Engine 2. Plus Chaos Engine 2 AGA demo and lots more on CD.
FEATURES: Turn your Amiga into a pro studio. Printers: problems solved.
INSIDE: Quickcam, Cybervision 3D, SMD 100, JetPilot and more reviewed.

April 1997



ON THE DISKS: Directory Opus 5.11 (full program). Tiny Troops demo. Loads of stuff on CD.
FEATURES: Build your own Tower Amiga Part 1. The 50 best Amiga Games ever!
INSIDE: Massive Cinema 4D 3.0 Review, new DTP series, ProGrab Sampler, Teletext Decoder, and more.

May 1997



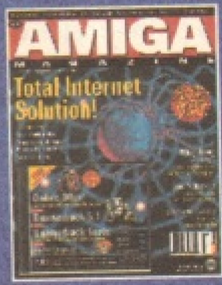
ON THE DISKS: Image Studio (full program) Nargon RPG demo. Exclusive clipart on CD & much more.
FEATURES: The Future's Bright: Gateway buys Amiga. Tower Amiga Part 2. Internet Killed the Radio Star
INSIDE: PageStream 3.2, Big Red Adventure, LightWave 5, Epson Stylus 600...

June 1997



ON THE DISKS: Pro Page 4.1 (full program) MPEGA 2.4, Sysinspector, The Sun game and more!
FEATURES: Gateway/Amiga update. CD-R for Amiga – cut your own CDs for a few hundred pounds plus Tower Amiga Part 3: Zorro.
INSIDE: Turbo Print 5, Net Connect, Cybervision...

July 1997



ON THE DISKS: Free Net software, Quaterback 6.1 inc DB tools, plus Big Red Adventure and more!
FEATURES: Total Internet Solution, What Went Wrong – the definitive history of the Amiga and a look at Amiga artist, Eric Schwartz.
INSIDE: Final Writer '97, Siamese RTG 2.0, Burn It...

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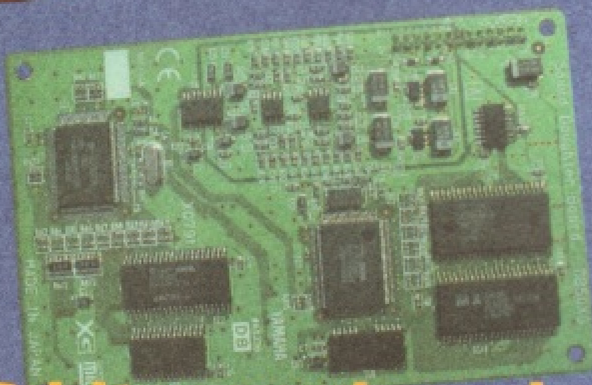
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NEW!

DIY Scene

Get your soldering iron out, it's time for some adventures in DIY electronics! Starting next month, only in CU Amiga Magazine, DIY Scene will bring the latest cutting edge hardware to your Amiga.



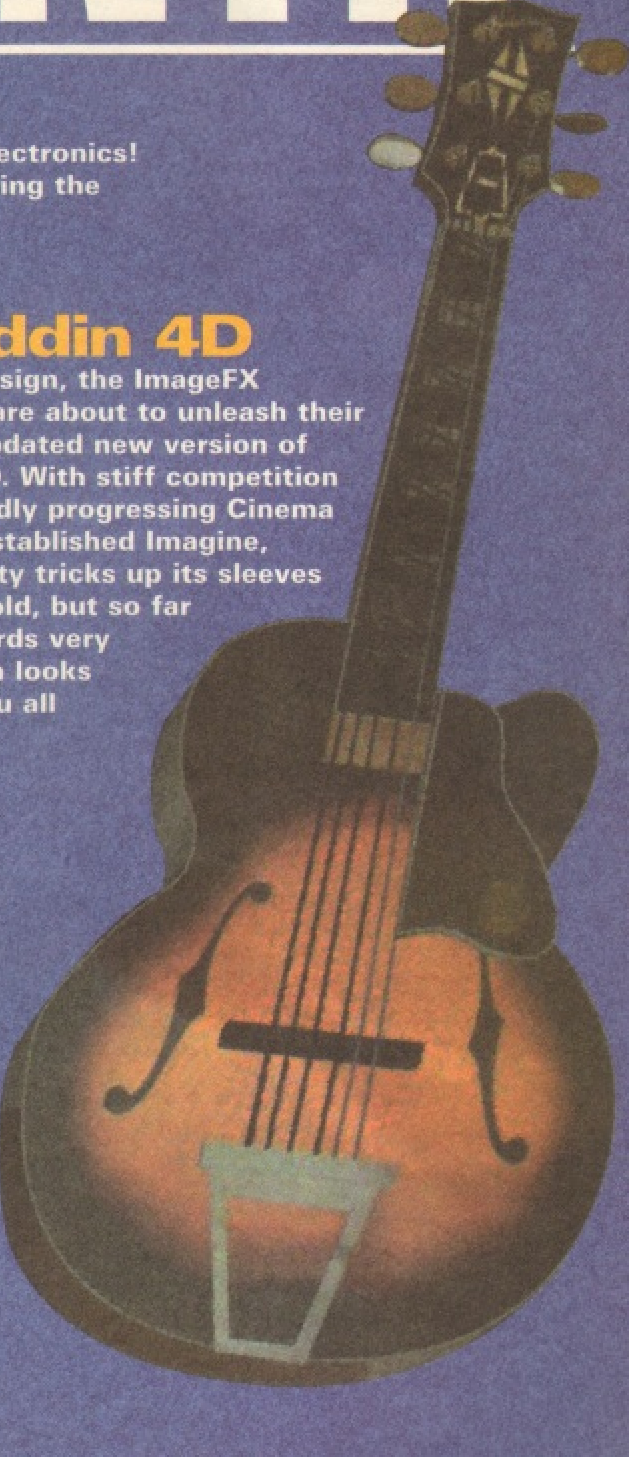
18-bit sound card

We're kicking things off with an ingenious way to add an incredible 18-bit sound card to any Amiga. For little more than £100 it even has an internal DSP effects unit. Interested? Thought so – don't miss it!

ALSO STARRING

Aladdin 4D

Nova Design, the ImageFX people, are about to unleash their totally updated new version of Aladdin 4D. With stiff competition from the rapidly progressing Cinema 4D and the well established Imagine, Aladdin 4D will need some nifty tricks up its sleeves in order to get a strong foothold, but so far Nova Design has played its cards very close to its chest. A big splash looks inevitable, and we will tell you all about it next month.





Don't buy a Mac!

Even if you were contemplating the idea of getting a Mac, Amiga Mac emulation is now so advanced that there's really no need. Recently Shapeshifter has ruled the roost, but now Fusion, a progression from the previous Emplant system, is getting ready for a serious show down. We'll be demanding tortuous tasks of it in order to find out if it really is 'The Mac'.

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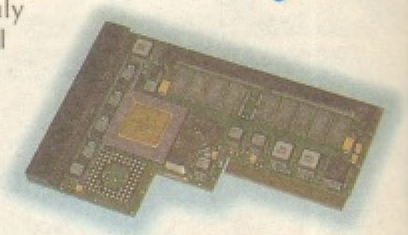
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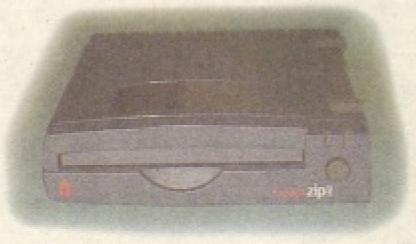
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Net&Web 2	£59.95
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Personal Paint 7.1 CD	£24.95
Devpac 3 Assembler	£49.95
HighSpeed Pascal	£69.95
HiSoft BASIC 2	£49.95
Gamesmith	£69.95
Studio 2	£44.95
ProFlight	£19.95
SMD-100 & 4 VideoCDs	£169.95

Squirrel ZIP

The revolutionary Zip drive from Iomega is one of the major technological developments of the 90s, and it works perfectly on your Amiga with our tailor-made Squirrel Zip kits.



SQUIRREL ZIP100 PACK

The complete Zip100 pack for any SCSI-aware Amiga computer:

- ✔ Zip Drive including 1 cartridge with PC/Mac Zip Tools, 25-way to 25-way SCSI lead, manuals etc.
- ✔ HiSoft Amiga Zip Tools software with Amiga-specific user manual.
- ✔ Special 25-way to 50-way converter for use with Squirrel SCSI or other SCSI peripherals.

£149.95

SQUIRREL ZIP100 GOLD PACK

The Gold Pack contains everything in the standard pack (see left) plus:

- ✔ 2 extra Zip 100Mb cartridges, a total of 300Mb storage in the pack.
- ✔ SCSI lead of your choice: 25-way to 50-way, 50-way to 50-way etc.

£179.95

Squirrel CDR

Make my own CDs? No, too expensive. Well, not any more with the brand-new SquirrelCDR system. Combining a brilliant, 2-speed write, 6-speed read CDR drive with the excellent commercial version of MakeCD, the SquirrelCDR system is unbeatable - just look at what you can do:

- ✔ Backup 650MB of hard disk in under 40 minutes.
- ✔ Write up to 100 sessions per disc.
- ✔ Create your own multimedia discs.
- ✔ Create your own music discs.
- ✔ Back-up CD-ROMs.
- ✔ Back-up audio discs.
- ✔ Back-up console games.
- ✔ Back-up ANY compact disc!
- ✔ Create Mac / PC discs on your Amiga.
- ✔ Create mixed audio / data discs.
- ✔ Create bootable CD32 discs-perfect for demos!
- ✔ Play CD-ROMs at 900kB per second.
- ✔ Play CD32 discs.
- ✔ Access all sessions of a PhotoCD.
- ✔ Play audio discs.



Ideally suited for the Squirrel SCSI interfaces on the A1200, the SquirrelCDR will also work on most SCSI-aware Amigas.

SquirrelCDR XL *(external drive, MakeCD, Surf Squirrel, gold disk)*	£469.95
SquirrelCDR GT *(ext drive, MakeCD, gold disk, w/o SCSI i/face)*	£399.95
SquirrelCDR I *(internal drive, MakeCD, gold disk, w/o SCSI i/face)*	£349.95
MakeCD *(full commercial version, no restrictions)*	£39.95
Gold Disk *(fully warranted, 650Mb capacity)*	£6.95

Cinema4D CD EDITION



We are delighted to announce the immediate availability of the CD Edition of the acclaimed CINEMA 4D raytracing package. The CD Edition includes a brand-new version of CINEMA 4D, many more textures, scenes and objects (>200 predefined materials, >400 bitmap textures) and, as a special FREE bonus, CinemaWORLD and CinemaFONT are included!

For those who already know CINEMA 4D, here are some of the new features:

- ✔ Direct 68060 support - rendering up to 100% faster.
- ✔ Brand new Material Manager with material previews.
- ✔ Materials now support colour, luminance, transparency, reflectivity, environment, fog, bump mapping, genlocking, highlights and highlight colouring as separate material attributes.
- ✔ Unlimited number of materials on an object.
- ✔ Lighting system supports visible light, lens flares, glows, reflections, soft and hard shadows, conical, parallel, decreasing and fixed intensity light.
- ✔ Camera supports depth of field blurring and lens adjustment to allow fisheye, wide angle or telephoto lenses.
- ✔ Internal CyberGraphX support.
- ✔ Palette sharing on 256 colour screens.

CINEMA 4D has a long history on the Amiga, being used all over the world by graphic studios, architects, television companies and enthusiastic amateurs. Now its pedigree has been realised by the Macintosh and PC world who have raved about it (93% - MacFormat). Call us for a special cross-platform price.

£199.95

UPGRADE PRICES
Ver 2 to CD Edition £69
Ver 3 to CD Edition £29

THE Whippet

The Whippet is a fully buffered, ultra high speed serial port capable of performing up to 400% faster than the A1200's serial port. Data transfers with The Whippet are guaranteed to be much faster, much safer and much more reliable than when using the standard Amiga serial port.

The Whippet really comes into its own when surfing the Internet. High speed drivers allow the use of web browsers, ftp clients, email clients, usenet readers and other Internet tools, all at the same time without any loss of data—and with full multitasking!

COMPATIBLE WITH

- All Amiga networking software.
- All Amiga Internet software.
- All Amiga communications software.

FEATURES

- High performance serial port, up to 400% faster than the Amiga serial port.
- The Whippet is fully buffered for safer and reliable data transfer.
- Up to 230,000 bps data transfer rate.

£49.95

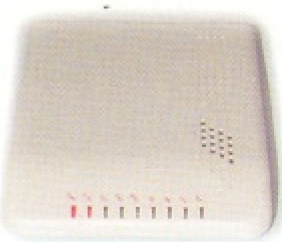
Enterprise NET&WEB

Confused by all the hype about the internet? We're not surprised. But here is the no-nonsense, quickstart pack that contains all you need to connect, to send and receive email, to transfer files, to access those essential newsgroups and to browse the world wide web. The brand-new Enterprise Net&Web pack is a breeze to install and a joy to use - here's what you get:

ENTERPRISE NET&WEB PACK

- ✔ 33.6bps Fax/Voice Modem - cream
- ✔ Modem & telephone leads
- ✔ Easy install program
- ✔ Free 30-day trial account with Demon Internet
- ✔ Net&Web Software
  FTP file transfer
  HiSoft Mail email
  IBrowse browser
  Usenet newsreader

£99.95



ENTERPRISE NET&WEB+ PACK

Everything in the Enterprise Net&Web Pack (see left) *plus*

- ✔ *TermiteTCP*, software that supports ppp for connection to *any* service provider.
- ✔ *Amiga Surfin' Book*, full of invaluable info on the internet.

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Are you wanting to connect to the Internet?

1. Comprehensive Software

ALL YOU NEED TO CONNECT AND SURF

NetConnect provides you will all you need to connect to the Internet - full TCP stack, web browser, mail, news, ftp, irc and telnet clients. You don't need anything else, no need to worry about additional software. The CD version even includes pre-configured MIME-types for web browsing), datatypes, additional online documentation and more!

2. Commercially Licensed

NO SHAREWARE - FULLY LICENSED SOFTWARE

NetConnect is a suite if **commercially licensed** Internet software which means there is no need to register or purchase any of the software contained within the package - no time limitations, no hassle. All the software contained within NetConnect are arguably the best in their class. You **can** add other commercial Internet software to NetConnect via the configurable 'ToolsManager' style icon bar.

3. After Sales Support

THE BEST FREE SUPPORT - GUARANTEED

We pride ourselves in offering superb after sales support to all our NetConnect/Internet users. We guarantee you will not get better **free** Internet related support from any other rival company. Support via:

- Telephone (during normal office hours - other companies charge for this!)
- E-Mail (you can email us directly with NetConnect or general Internet enquiries)
- Mailing list (subscribe to our mailing list - a general NetConnect/Internet forum)
- WWW (the NetConnect web site contains news and upgrades for registered users)

Our aim is to help users with their Internet connection **after** they have purchased NetConnect and we understand that the Internet can be a daunting experience for the beginner.

4. Quality Branded Modems

We only supply quality **branded** modems (Dynalink UK Ltd), which may cost slightly more than their unbranded competitors, but they ship with a 5 year warranty, the knowledge that a UK company offers support/information and you are buying a modem with quality (Rockwell based) components.

K56 *new 56k modems!*

5. Connectivity Offers

When you examine the competition you may notice that we offer NetConnect users substantial savings when they need to connect to an Internet Service Provider (ISP). We currently have two offers: save £20.00 (exl. VAT) from Enterprise PLC or a free trial period with either Demon Internet or Netcom. These offers add value to NetConnect.

6. Applauded by Experts

NETCONNECT v1 REVIEWS

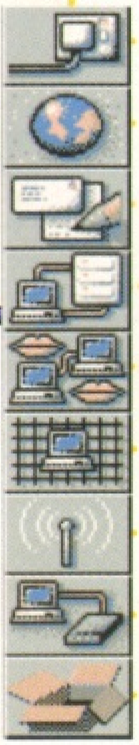
NetConnect has received rave reviews by Amiga Internet experts from paper and online magazines! Many of these reviewers recognise the ease-of use of the package, the comprehensive collection of software and the backup support we provided via our mailing list, web site and telephone hotline (during office hours).

CU Amiga (June 97) - **89%**
Amiga Format (June 97) - **92%** Gold Award "..if you're considering getting online, NetConnect is the perfect choice for the Amiga user."
Amiga Computing (July 97) - **92%** "Only a fool would miss out on the chance of buying such an excellent suite of programs at such an affordable price."
theLair (issue 3) **5/5** "..best of its class." (online http://amigaworld.com/thelair)
PureAmiga **98%** (online http://www.pureamiga.co.uk)



It's dead easy!

NetConnect is super-easy to connect to the Internet! Just choose the provider, enter some user details (name, email address), select your modem and you are ready to start surfing! NetConnect also comes with a configurable icon bar to launch and manage your Internet modules - you can even add other software if desired. All the software within NetConnect is supported with regular upgrades. Amiga Format concluded (June 97 issue): "Almost the perfect package for the Amiga Internet user", "If you need to get online, this is the easiest way to do it" and "It's good value for money too - especially the bundle including the 33.6K modem."



AMITCP v4.6 DIALUP
AmiTCP is a new full TCP stack, enhanced and developed by us and NSDi with full GUI control!

VOYAGER-NG
Voyager Next Generation is already powerful with javascript, frames, tables, SSL (https:) etc!

MICRODOT-II
A superb and brand new commercial email and news client, said to be the best for the Amiga!

AMFTP
The industry standard FTP client and the number one FTP program on the Amiga.

AMIRC
Again, the industry standard Amiga IRC client - said to be better that its PC and Mac rivals!

AMTELNET
Use AmTelnet to maintain your web site, connect to external computers, play online games!

NET INFO
NetInfo is a new program by Oliver Wagner to search the net - traceroute, ping, services etc.

AMTERM
AmTerm is a comms program - connect to a BBS, send files to your friends Amiga/PC/Mac!

X-ARC
Brand new DOpus like archive management tool which integrates with the NetConnect package!

.....STOP PRESS.....STOP PRESS.....STOP PRESS.....

NetConnect v2 Announced!

If you thought NetConnect was good, look at the specifications for v2 (due out around the end of July):

- Wizard GUI - makes configuring your ISP a doddle!
- New programs - NetInfo and X-Arc
- Re-written AmiTCP Dialler (MUI based, more control)
- Programs are now keyfile based (can be used with any TCP stack!)
- Extras pre-configured: MIME types, datatypes, online help files etc
- Updated, latest versions of the modules (Voyager, Microdot-II, AmIRC, AmFTP etc)
- Printed installation/introduction guide
- Printed manual - using the Internet and NetConnect
- Plus many more smaller changes and additions

Latest Technology Modems

K56Flex modems are here! Download software and web pages upto **twice** the speed of a 28.8 modem. 56k modems will operate at 33.6K speeds for uploading but you can cut your phone bills drastically when using the 56K technology! Isn't it about time you upgraded that 14.4 or 28.8 modem? For further information about the new K56Flex (Rockwell developed) technology contact us!

DESCRIPTION	PRICE
Dynalink 1456VQE Data/Fax/Voice Modem	£119.95
Dynalink 1456VQE Data/Fax/Voice Modem & NetConnect	£149.95
Dynalink 1433VQE Data/Fax/Voice Modem	£ 89.95
Dynalink 1433VQE Data/Fax/Voice Modem & NetConnect	£119.95

K56Flex modems need to connect to another K56Flex modem in order to use 56K technology (make sure your provider supports K56Flex technology). Call for further technical details.



- Quality branded Dynalink modem (supported by Dynalink UK Ltd)
- 33600 bps DATA/FAX/VOICE modem - true v34. Throughput to 115,200 BPS via V.42 bis data compression
- Group 1, 2 & 3 send/receive FAX (14.4)
- Voice Commands - DSVD upgradeable (by software)
- Auto Answer
- Full Duplex Speaker
- Call Discrimination
- Fax on demand
- Simultaneous voice and data (S.V.D.)
- Message playback via sound card / speaker or headset
- Auto mode detection allows modem to connect with a modem that is configured for differing connection modes
- Extended AT (Hayes compatible) command set
- Upgradable ROM chip (safeguarding against future specifications)
- BT and CE Approved
- Amiga 25pin and Surf Squirrel/PC 9pin serial cable included
- With Headphones and Microphone
- 5 year warranty - also undergone rigorous Amiga tests

Send your order to:
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01325 352260
active@enterprise.net

POSTAGE/DELIVERY

CD's	- 50p per CD for UK delivery - £1 per CD for EU delivery - £2 per CD World delivery
Modem	- £3 for 2-3 day delivery - £5 for next day delivery - £15 for Saturday delivery

Make cheques/P.O.'s payable to Active Software and send to the address listed opposite. We can accept credit or debit card orders. For any additional information call us ASAP!

WANT MORE INFORMATION?

We provide an information pack covering NetConnect and the modules (Voyager, MD-2 etc), the modems we offer, connectivity discounts and a set of frequentely asked questions and answers. Ask us to send you an info pack!

You can also access the NetConnect homepage for additional info, latest news and to download a time-limited demo version of the software: http://amigaworld.com/netconnect

NETCONNECT AND VAPORWARE PRICES

NetConnect CD Version or 3.5" Floppy Disks	£ 49.95
33.6 External Dynalink Data/Fax/Voice Modem	£ 89.95
33.6 Modem (as above) & NetConnect CD or 3.5" Disks	£ 119.95
Voyager Next Generation	£ 23.00
Microdot-II (call for release date and to confirm price)	£ 18.00
AmIRC v1.57	£ 18.00
AmFTP v1.76	£ 18.00
AmTalk v1.2	£ 12.00
AmTelnet v1.3 + AmTerm v1.1	£ 18.00

- 5% Discount when 2-4 Vapor products are bought, 10% Discount for 5+
- Note that the Vaporware products are e-mail only but can be sent on floppy for a surcharge of £2.00 per product.